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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

HADDAD, MAHER M

ART UNIT PAPER NUMBER

1644

DATE MAILED: 06/18/2002

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/972,268

Applicant(s)

BAUM ET AL.

Examiner

Maher M. Haddad

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-53 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☐ Claim(s) ____ is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☒ Claim(s) 1-53 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____ 6) ☐ Other:

DETAILED ACTION

Restriction Requirement

2. Please Note: In an effort to enhance communication with our customers and reduce processing time, Group 1640 is running a Fax Response Pilot for Written Restriction Requirements. A dedicated Fax machine is in place to receive your responses. The Fax number is 703-308-4315. A Fax cover sheet is attached to this Office Action for your convenience. We encourage your participation in this Pilot program. If you have any questions or suggestions please contact Paula Hutzell, Ph.D., Supervisory Patent Examiner at Paula.Hutzell@uspto.gov or 703-308-4310. Thank you in advance for allowing us to enhance our customer service. Please limit the use of this dedicated Fax number to responses to Written Restrictions.

3. Restriction to one of the following inventions is required under 35 U.S.C. § 121:

- I. Claims 1-5, 7, 9-11 and 19, drawn to a substantially purified polypeptide of SEQ ID NO:2, and fragments thereof; classified in Class 530, subclasses 395, 837, and 866.
- II. Claims 1-11 and 19, drawn to a substantially purified polypeptide of SEQ ID NO:4, and fragments thereof; classified in Class 530, subclasses 395, 837, and 866.
- III. Claims 1-11 and 19, drawn to a substantially purified polypeptide of SEQ ID NO:6, and fragments thereof; classified in Class 530, subclasses 395, 837, and 866.
- IV. Claims 1-5, 7, 9-11 and 19, drawn to a substantially purified polypeptide of SEQ ID NO:8, and fragments thereof; classified in Class 530, subclasses 395, 837, and 866.
- V. Claims 1-11 and 19, drawn to a substantially purified polypeptide of SEQ ID NO:10, and fragments thereof; classified in Class 530, subclasses 395, 837, and 866.
- VI. Claims 1-11 and 19, drawn to a substantially purified polypeptide of SEQ ID NO:12, and fragments thereof; classified in Class 530, subclasses 395, 837, and 866.
- VII. Claims 1-11 and 19, drawn to a substantially purified polypeptide of SEQ ID NO:24, and fragments thereof; classified in Class 530, subclasses 395, 837, and 866.
- VIII. Claims 1-5, 7, 9-11 and 19, drawn to a substantially purified polypeptide of SEQ ID NO: 31, and fragments thereof; classified in Class 530, subclasses 395, 837, and 866.
- IX. Claims 1-11 and 19, drawn to a substantially purified polypeptide of SEQ ID NO:34, and fragments thereof; classified in Class 530, subclasses 395, 837, and 866.
- X. Claims 1-11 and 19, drawn to a substantially purified polypeptide of SEQ ID NO:37, and fragments thereof; classified in Class 530, subclasses 395, 837, and 866.

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- XI. Claims 1-11 and 19, drawn to a substantially purified polypeptide of SEQ ID NO:38, and fragments thereof; classified in Class 530, subclasses 395, 837, and 866.
- XII. Claims 1-11 and 19, drawn to a substantially purified polypeptide of SEQ ID NO:39, and fragments thereof; classified in Class 530, subclasses 395, 837, and 866.
- XIII. Claims 6, 8-11 and 19, drawn to a substantially purified polypeptide of SEQ ID NO:36, and fragments thereof; classified in Class 530, subclasses 395, 837, and 866.
- XIV. Claims 12-18, drawn to an isolated polynucleotide of SEQ ID NO:1 encoding polypeptide of SEQ ID NO: 2; vectors, host cells, and methods of producing the polypeptide, classified in Class 536, subclass 23.5; Class 435, subclasses 69.1, 455, 252.3, and 320.1.
- XV. Claims 12-18, drawn to an isolated polynucleotide of SEQ ID NO:3 encoding polypeptide of SEQ ID NO:4; vectors, host cells, and methods of producing the polypeptide, classified in Class 536, subclass 23.5; Class 435, subclasses 69.1, 455, 252.3, and 320.1.
- XVI. Claims 12-18, drawn to an isolated polynucleotide of SEQ ID NO:5 encoding polypeptide of SEQ ID NO:6; vectors, host cells, and methods of producing the polypeptide, classified in Class 536, subclass 23.5; Class 435, subclasses 69.1, 455, 252.3, and 320.1.
- XVII. Claims 12-18, drawn to an isolated polynucleotide of SEQ ID NO:7 encoding polypeptide of SEQ ID NO:8; vectors, host cells, and methods of producing the polypeptide, classified in Class 536, subclass 23.5; Class 435, subclasses 69.1, 455, 252.3, and 320.1.
- XVIII. Claims 12-18, drawn to an isolated polynucleotide of SEQ ID NO:9 encoding polypeptide of SEQ ID NO:10; vectors, host cells, and methods of producing the polypeptide, classified in Class 536, subclass 23.5; Class 435, subclasses 69.1, 455, 252.3, and 320.1.
- XIX. Claims 12-18, drawn to an isolated polynucleotide of SEQ ID NO:11 encoding polypeptide of SEQ ID NO: 12; vectors, host cells, and methods of producing the polypeptide, classified in Class 536, subclass 23.5; Class 435, subclasses 69.1, 455, 252.3, and 320.1.
- XX. Claims 12-18, drawn to an isolated polynucleotide of SEQ ID NO: 32 encoding polypeptide of SEQ ID NO: 24; vectors, host cells, and methods of producing the polypeptide, classified in Class 536, subclass 23.5; Class 435, subclasses 69.1, 455, 252.3, and 320.1.
- XXI. Claims 12-18, drawn to an isolated polynucleotide of SEQ ID NO: 30 encoding polypeptide of SEQ ID NO: 31; vectors, host cells, and methods of producing the polypeptide, classified in Class 536, subclass 23.5; Class 435, subclasses 69.1, 455, 252.3, and 320.1.
- XXII. Claims 12-18, drawn to an isolated polynucleotide of SEQ ID NO:33 encoding polypeptide of SEQ ID NO: 34; vectors, host cells, and methods of producing the polypeptide, classified in Class 536, subclass 23.5; Class 435, subclasses 69.1, 455, 252.3, and 320.1.
- XXIII. Claims 12-18, drawn to an isolated polynucleotide encoding polypeptide of SEQ ID NO: 37; vectors, host cells, and methods of producing the polypeptide, classified in Class 536, subclass 23.5; Class 435, subclasses 69.1, 455, 252.3, and 320.1.

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- XXIV. Claims 12-18, drawn to an isolated polynucleotide encoding polypeptide of SEQ ID NO: 38; vectors, host cells, and methods of producing the polypeptide, classified in Class 536, subclass 23.5; Class 435, subclasses 69.1, 455, 252.3, and 320.1.
- XXV. Claims 12-18, drawn to an isolated polynucleotide encoding polypeptide of SEQ ID NO: 39; vectors, host cells, and methods of producing the polypeptide, classified in Class 536, subclass 23.5; Class 435, subclasses 69.1, 455, 252.3, and 320.1.
- XXVI. Claims 14-18, drawn to an isolated polynucleotide of SEQ ID NO: 35 encoding polypeptide of SEQ ID NO: 36; vectors, host cells, and methods of producing the polypeptide, classified in Class 536, subclass 23.5; Class 435, subclasses 69.1, 455, 252.3, and 320.1.
- XXVII. Claims 20-23, drawn to an antibody against SEQ ID NO: 2; classified in Class 530, subclass 388.15.
- XXVIII. Claims 20-23, drawn to an antibody against SEQ ID NO: 4; classified in Class 530, subclass 388.15.
- XXIX. Claims 20-23, drawn to an antibody against SEQ ID NO: 6; classified in Class 530, subclass 388.15.
- XXX. Claims 20-23, drawn to an antibody against SEQ ID NO: 8; classified in Class 530, subclass 388.15.
- XXXI. Claims 20-23, drawn to an antibody against SEQ ID NO: 10; classified in Class 530, subclass 388.15.
- XXXII. Claims 20-23, drawn to an antibody against SEQ ID NO: 12; classified in Class 530, subclass 388.15.
- XXXIII. Claims 20-23, drawn to an antibody against SEQ ID NO: 24; classified in Class 530, subclass 388.15.
- XXXIV. Claims 20-23, drawn to an antibody against SEQ ID NO: 31; classified in Class 530, subclass 388.15.
- XXXV. Claims 20-23, drawn to an antibody against SEQ ID NO: 34; classified in Class 530, subclass 388.15.
- XXXVI. Claims 20-23, drawn to an antibody against SEQ ID NO: 37; classified in Class 530, subclass 388.15.
- XXXVII. Claims 20-23, drawn to an antibody against SEQ ID NO: 38; classified in Class 530, subclass 388.15.
- XXXVIII. Claims 20-23, drawn to an antibody against SEQ ID NO: 39; classified in Class 530, subclass 388.15.

- XXXIX. Claim 24, drawn to a method of designing an inhibitor or binding agent of a polypeptide of SEQ ID NO: 2, classified in Class 435, subclass 7.1.
- XL. Claim 24, drawn to a method of designing an inhibitor or binding agent of a polypeptide of SEQ ID NO: 4, classified in Class 435, subclass 7.1.
- XLI. Claim 24, drawn to a method of designing an inhibitor or binding agent of a polypeptide of SEQ ID NO: 6, classified in Class 435, subclass 7.1.
- XLII. Claim 24, drawn to a method of designing an inhibitor or binding agent of a polypeptide of SEQ ID NO: 8, classified in Class 435, subclass 7.1.
- XLIII. Claim 24, drawn to a method of designing an inhibitor or binding agent of a polypeptide of SEQ ID NO: 10; classified in Class 435, subclass 7.1.
- XLIV. Claim 24, drawn to a method of designing an inhibitor or binding agent of a polypeptide of SEQ ID NO: 12; classified in Class 435, subclass 7.1.
- XLV. Claim 24, drawn to a method of designing an inhibitor or binding agent of a polypeptide of SEQ ID NO: 24; classified in Class 435, subclass 7.1.
- XLVI. Claim 24, drawn to a method of designing an inhibitor or binding agent of a polypeptide of SEQ ID NO: 31; classified in Class 435, subclass 7.1.
- XLVII. Claim 24, drawn to a method of designing an inhibitor or binding agent of a polypeptide of SEQ ID NO: 34, classified in Class 435, subclass 7.1.
- XLVIII. Claim 24, drawn to a method of designing an inhibitor or binding agent of a polypeptide of SEQ ID NO: 37; classified in Class 435, subclass 7.1.
- XLIX. Claim 24, drawn to a method of designing an inhibitor or binding agent of a polypeptide of SEQ ID NO: 38; classified in Class 435, subclass 7.1.
- L. Claim 24, drawn to a method of designing an inhibitor or binding agent of a polypeptide of SEQ ID NO: 39; classified in Class 435, subclass 7.1.
- LI. Claims 25-27, drawn to a method for identifying an agent that modulates an activity of a polypeptide of SEQ ID NO: 2 as it reads on an antibody, classified in Class 435, subclass 7.1.
- LII. Claims 25-27, drawn to a method for identifying an agent that modulates an activity of a polypeptide of SEQ ID NO: 2 as it reads on a small molecule, classified in Class 435, subclass 7.1.
- LIII. Claims 25-27, drawn to a method for identifying an agent that modulates an activity of a polypeptide of SEQ ID NO: 2 as it reads on a peptide, classified in Class 435, subclass 7.1.

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- LIV. Claims 25-27, drawn to a method for identifying an agent that modulates an activity of a polypeptide of SEQ ID NO: 2 as it reads on a peptidomimetic, classified in Class 435, subclass 7.1.
- LV. Claims 25-27, drawn to a method for identifying an agent that modulates an activity of a polypeptide of SEQ ID NO: 4 as it reads on an antibody, classified in Class 435, subclass 7.1.
- LVI. Claims 25-27, drawn to a method for identifying an agent that modulates an activity of a polypeptide of SEQ ID NO: 4 as it reads on a small molecule, classified in Class 435, subclass 7.1.
- LVII. Claims 25-27, drawn to a method for identifying an agent that modulates an activity of a polypeptide of SEQ ID NO: 4 as it reads on a peptide, classified in Class 435, subclass 7.1.
- LVIII. Claims 25-27, drawn to a method for identifying an agent that modulates an activity of a polypeptide of SEQ ID NO: 4 as it reads on a peptidomimetic, classified in Class 435, subclass 7.1.
- LIX. Claims 25-27, drawn to a method for identifying an agent that modulates an activity of a polypeptide of SEQ ID NO: 6 as it reads on an antibody, classified in Class 435, subclass 7.1.
- LX. Claims 25-27, drawn to a method for identifying an agent that modulates an activity of a polypeptide of SEQ ID NO: 6 as it reads on a small molecule, classified in Class 435, subclass 7.1.
- LXI. Claims 25-27, drawn to a method for identifying an agent that modulates an activity of a polypeptide of SEQ ID NO: 6 as it reads on a peptide, classified in Class 435, subclass 7.1.
- LXII. Claims 25-27, drawn to a method for identifying an agent that modulates an activity of a polypeptide of SEQ ID NO: 6 as it reads on a peptidomimetic, classified in Class 435, subclass 7.1.
- LXIII. Claims 25-27, drawn to a method for identifying an agent that modulates an activity of a polypeptide of SEQ ID NO: 8 as it reads on an antibody, classified in Class 435, subclass 7.1.
- LXIV. Claims 25-27, drawn to a method for identifying an agent that modulates an activity of a polypeptide of SEQ ID NO: 8 as it reads on a small molecule, classified in Class 435, subclass 7.1.
- LXV. Claims 25-27, drawn to a method for identifying an agent that modulates an activity of a polypeptide of SEQ ID NO: 8 as it reads on a peptide, classified in Class 435, subclass 7.1.
- LXVI. Claims 25-27, drawn to a method for identifying an agent that modulates an activity of a polypeptide of SEQ ID NO: 8 as it reads on a peptidomimetic, classified in Class 435, subclass 7.1.

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- LXVII. Claims 25-27, drawn to a method for identifying an agent that modulates an activity of a polypeptide of SEQ ID NO: 10 as it reads on an antibody, classified in Class 435, subclass 7.1.
- LXVIII. Claims 25-27, drawn to a method for identifying an agent that modulates an activity of a polypeptide of SEQ ID NO: 10 as it reads on a small molecule, classified in Class 435, subclass 7.1.
- LXIX. Claims 25-27, drawn to a method for identifying an agent that modulates an activity of a polypeptide of SEQ ID NO: 10 as it reads on a peptide, classified in Class 435, subclass 7.1.
- LXX. Claims 25-27, drawn to a method for identifying an agent that modulates an activity of a polypeptide of SEQ ID NO: 10 as it reads on a peptidomimetic, classified in Class 435, subclass 7.1.
- LXXI. Claims 25-27, drawn to a method for identifying an agent that modulates an activity of a polypeptide of SEQ ID NO: 12 as it reads on an antibody, classified in Class 435, subclass 7.1.
- LXXII. Claims 25-27, drawn to a method for identifying an agent that modulates an activity of a polypeptide of SEQ ID NO: 12 as it reads on a small molecule, classified in Class 435, subclass 7.1.
- LXXIII. Claims 25-27, drawn to a method for identifying an agent that modulates an activity of a polypeptide of SEQ ID NO: 12 as it reads on a peptide, classified in Class 435, subclass 7.1.
- LXXIV. Claims 25-27, drawn to a method for identifying an agent that modulates an activity of a polypeptide of SEQ ID NO: 12 as it reads on a peptidomimetic, classified in Class 435, subclass 7.1.
- LXXV. Claims 25-27, drawn to a method for identifying an agent that modulates an activity of a polypeptide of SEQ ID NO: 24 as it reads on an antibody, classified in Class 435, subclass 7.1.
- LXXVI. Claims 25-27, drawn to a method for identifying an agent that modulates an activity of a polypeptide of SEQ ID NO: 24 as it reads on a small molecule, classified in Class 435, subclass 7.1.
- LXXVII. Claims 25-27, drawn to a method for identifying an agent that modulates an activity of a polypeptide of SEQ ID NO: 24 as it reads on a peptide, classified in Class 435, subclass 7.1.
- LXXVIII. Claims 25-27, drawn to a method for identifying an agent that modulates an activity of a polypeptide of SEQ ID NO: 24 as it reads on a peptidomimetic, classified in Class 435, subclass 7.1.
- LXXIX. Claims 25-27, drawn to a method for identifying an agent that modulates an activity of a polypeptide of SEQ ID NO: 31 as it reads on an antibody, classified in Class 435, subclass 7.1.

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- LXXX. Claims 25-27, drawn to a method for identifying an agent that modulates an activity of a polypeptide of SEQ ID NO: 31 as it reads on a small molecule, classified in Class 435, subclass 7.1.
- LXXXI. Claims 25-27, drawn to a method for identifying an agent that modulates an activity of a polypeptide of SEQ ID NO: 31 as it reads on a peptide, classified in Class 435, subclass 7.1.
- LXXXII. Claims 25-27, drawn to a method for identifying an agent that modulates an activity of a polypeptide of SEQ ID NO: 31 as it reads on a peptidomimetic, classified in Class 435, subclass 7.1.
- LXXXIII. Claims 25-27, drawn to a method for identifying an agent that modulates an activity of a polypeptide of SEQ ID NO: 34 as it reads on an antibody, classified in Class 435, subclass 7.1.
- LXXXIV. Claims 25-27, drawn to a method for identifying an agent that modulates an activity of a polypeptide of SEQ ID NO: 34 as it reads on a small molecule, classified in Class 435, subclass 7.1.
- LXXXV. Claims 25-27, drawn to a method for identifying an agent that modulates an activity of a polypeptide of SEQ ID NO: 34 as it reads on a peptide, classified in Class 435, subclass 7.1.
- LXXXVI. Claims 25-27, drawn to a method for identifying an agent that modulates an activity of a polypeptide of SEQ ID NO: 34 as it reads on a peptidomimetic, classified in Class 435, subclass 7.1.
- LXXXVII. Claims 25-27, drawn to a method for identifying an agent that modulates an activity of a polypeptide of SEQ ID NO: 37 as it reads on an antibody, classified in Class 435, subclass 7.1.
- LXXXVIII. Claims 25-27, drawn to a method for identifying an agent that modulates an activity of a polypeptide of SEQ ID NO: 37 as it reads on a small molecule, classified in Class 435, subclass 7.1.
- LXXXIX. Claims 25-27, drawn to a method for identifying an agent that modulates an activity of a polypeptide of SEQ ID NO: 2 as it reads on a peptide, classified in Class 435, subclass 7.1.
- XC. Claims 25-27, drawn to a method for identifying an agent that modulates an activity of a polypeptide of SEQ ID NO: 37 as it reads on a peptidomimetic, classified in Class 435, subclass 7.1.
- XCI. Claims 25-27, drawn to a method for identifying an agent that modulates an activity of a polypeptide of SEQ ID NO: 38 as it reads on an antibody, classified in Class 435, subclass 7.1.

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- XCII. Claims 25-27, drawn to a method for identifying an agent that modulates an activity of a polypeptide of SEQ ID NO: 38 as it reads on a small molecule, classified in Class 435, subclass 7.1.
- XCIII. Claims 25-27, drawn to a method for identifying an agent that modulates an activity of a polypeptide of SEQ ID NO: 38 as it reads on a peptide, classified in Class 435, subclass 7.1.
- XCIV. Claims 25-27, drawn to a method for identifying an agent that modulates an activity of a polypeptide of SEQ ID NO: 38 as it reads on a peptidomimetic, classified in Class 435, subclass 7.1.
- XCV. Claims 25-27, drawn to a method for identifying an agent that modulates an activity of a polypeptide of SEQ ID NO: 39 as it reads on an antibody, classified in Class 435, subclass 7.1.
- XCVI. Claims 25-27, drawn to a method for identifying an agent that modulates an activity of a polypeptide of SEQ ID NO: 39 as it reads on a small molecule, classified in Class 435, subclass 7.1.
- XCVII. Claims 25-27, drawn to a method for identifying an agent that modulates an activity of a polypeptide of SEQ ID NO: 39 as it reads on a peptide, classified in Class 435, subclass 7.1.
- XCVIII. Claims 25-27, drawn to a method for identifying an agent that modulates an activity of a polypeptide of SEQ ID NO: 39 as it reads on a peptidomimetic, classified in Class 435, subclass 7.1.
- XCIX. Claim 28, drawn to a method of modulating an activity comprising contacting a cell with an agent, wherein the agent is a polypeptide of SEQ ID NO: 2; classified in Class 435, subclass 7.1.
- C. Claim 28, drawn to a method of modulating an activity comprising contacting a cell with an agent, wherein the agent is a polypeptide of SEQ ID NO: 4; classified in Class 435, subclass 7.1.
- CI. Claim 28, drawn to a method of modulating an activity comprising contacting a cell with an agent, wherein the agent is a polypeptide of SEQ ID NO: 6; classified in Class 435, subclass 7.1.
- CII. Claim 28, drawn to a method of modulating an activity comprising contacting a cell with an agent, wherein the agent is a polypeptide of SEQ ID NO: 8; classified in Class 435, subclass 7.1.
- CIII. Claim 28, drawn to a method of modulating an activity comprising contacting a cell with an agent, wherein the agent is a polypeptide of SEQ ID NO: 10; classified in Class 435, subclass 7.1.

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- CIV. Claim 28, drawn to a method of modulating an activity comprising contacting a cell with an agent, wherein the agent is a polypeptide of SEQ ID NO: 12; classified in Class 435, subclass 7.1.
- CV. Claim 28, drawn to a method of modulating an activity comprising contacting a cell with an agent, wherein the agent is a polypeptide of SEQ ID NO: 24; classified in Class 435, subclass 7.1.
- CVI. Claim 28, drawn to a method of modulating an activity comprising contacting a cell with an agent, wherein the agent is a polypeptide of SEQ ID NO: 31; classified in Class 435, subclass 7.1.
- CVII. Claim 28, drawn to a method of modulating an activity comprising contacting a cell with an agent, wherein the agent is a polypeptide of SEQ ID NO: 34; classified in Class 435, subclass 7.1.
- CVIII. Claim 28, drawn to a method of modulating an activity comprising contacting a cell with an agent, wherein the agent is a polypeptide of SEQ ID NO: 37; classified in Class 435, subclass 7.1.
- CIX. Claim 28, drawn to a method of modulating an activity comprising contacting a cell with an agent, wherein the agent is a polypeptide of SEQ ID NO: 38; classified in Class 435, subclass 7.1.
- CX. Claim 28, drawn to a method of modulating cellular proliferation or migration comprising contacting a cell with an agent, wherein the agent is a polypeptide of SEQ ID NO: 39; classified in Class 435, subclass 7.1.
- CXI. Claims 29-30, drawn to a method of identifying an agent that modulates binding between nectin-1 and a polypeptide of SEQ ID NO: 2 as it reads on a polypeptide; classified in Class 435, subclass 7.1.
- CXII. Claims 29-30, drawn to a method of identifying an agent that modulates binding between nectin-1 and a polypeptide of SEQ ID NO: 2 as it reads on an antibody; classified in Class 435, subclass 7.1.
- CXIII. Claims 29-30, drawn to a method of identifying an agent that modulates binding between nectin-1 and a polypeptide of SEQ ID NO: 2 as it reads on a peptidomimetic; classified in Class 435, subclass 7.1.
- CXIV. Claims 29-30, drawn to a method of identifying an agent that modulates binding between nectin-1 and a polypeptide of SEQ ID NO: 2 as it reads on a small molecule; classified in Class 435, subclass 7.1.
- CXV. Claims 29-30, drawn to a method of identifying an agent that modulates binding between nectin-1 and a polypeptide of SEQ ID NO: 4 as it reads on a polypeptide; classified in Class 435, subclass 7.1.

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- CXVI. Claims 29-30, drawn to a method of identifying an agent that modulates binding between nectin-1 and a polypeptide of SEQ ID NO: 4 as it reads on an antibody; classified in Class 435, subclass 7.1.
- CXVII. Claims 29-30, drawn to a method of identifying an agent that modulates binding between nectin-1 and a polypeptide of SEQ ID NO: 4 as it reads on a peptidomimetic; classified in Class 435, subclass 7.1.
- CXVIII. Claims 29-30, drawn to a method of identifying an agent that modulates binding between nectin-1 and a polypeptide of SEQ ID NO: 4 as it reads on a small molecule; classified in Class 435, subclass 7.1.
- CXIX. Claims 29-30, drawn to a method of identifying an agent that modulates binding between nectin-1 and a polypeptide of SEQ ID NO: 6 as it reads on a polypeptide; classified in Class 435, subclass 7.1.
- CXX. Claims 29-30, drawn to a method of identifying an agent that modulates binding between nectin-1 and a polypeptide of SEQ ID NO: 6 as it reads on an antibody; classified in Class 435, subclass 7.1.
- CXXI. Claims 29-30, drawn to a method of identifying an agent that modulates binding between nectin-1 and a polypeptide of SEQ ID NO: 6 as it reads on a peptidomimetic; classified in Class 435, subclass 7.1.
- CXXII. Claims 29-30, drawn to a method of identifying an agent that modulates binding between nectin-1 and a polypeptide of SEQ ID NO: 6 as it reads on a small molecule; classified in Class 435, subclass 7.1.
- CXXIII. Claims 29-30, drawn to a method of identifying an agent that modulates binding between nectin-1 and a polypeptide of SEQ ID NO: 8 as it reads on a polypeptide; classified in Class 435, subclass 7.1.
- CXXIV. Claims 29-30, drawn to a method of identifying an agent that modulates binding between nectin-1 and a polypeptide of SEQ ID NO: 8 as it reads on an antibody; classified in Class 435, subclass 7.1.
- CXXV. Claims 29-30, drawn to a method of identifying an agent that modulates binding between nectin-1 and a polypeptide of SEQ ID NO: 8 as it reads on a peptidomimetic; classified in Class 435, subclass 7.1.
- CXXVI. Claims 29-30, drawn to a method of identifying an agent that modulates binding between nectin-1 and a polypeptide of SEQ ID NO: 8 as it reads on a small molecule; classified in Class 435, subclass 7.1.
- CXXVII. Claims 29-30, drawn to a method of identifying an agent that modulates binding between nectin-1 and a polypeptide of SEQ ID NO: 10 as it reads on a polypeptide; classified in Class 435, subclass 7.1.

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- CXXXVIII. Claims 29-30, drawn to a method of identifying an agent that modulates binding between nectin-1 and a polypeptide of SEQ ID NO: 10 as it reads on an antibody; classified in Class 435, subclass 7.1.
- CXXXIX. Claims 29-30, drawn to a method of identifying an agent that modulates binding between nectin-1 and a polypeptide of SEQ ID NO: 10 as it reads on a peptidomimetic; classified in Class 435, subclass 7.1.
- CXXX. Claims 29-30, drawn to a method of identifying an agent that modulates binding between nectin-1 and a polypeptide of SEQ ID NO: 10 as it reads on a small molecule; classified in Class 435, subclass 7.1.
- CXXXI. Claims 29-30, drawn to a method of identifying an agent that modulates binding between nectin-1 and a polypeptide of SEQ ID NO: 12 as it reads on a polypeptide; classified in Class 435, subclass 7.1.
- CXXXII. Claims 29-30, drawn to a method of identifying an agent that modulates binding between nectin-1 and a polypeptide of SEQ ID NO: 12 as it reads on an antibody; classified in Class 435, subclass 7.1.
- CXXXIII. Claims 29-30, drawn to a method of identifying an agent that modulates binding between nectin-1 and a polypeptide of SEQ ID NO: 12 as it reads on a peptidomimetic; classified in Class 435, subclass 7.1.
- CXXXIV. Claims 29-30, drawn to a method of identifying an agent that modulates binding between nectin-1 and a polypeptide of SEQ ID NO: 12 as it reads on a small molecule; classified in Class 435, subclass 7.1.
- CXXXV. Claims 29-30, drawn to a method of identifying an agent that modulates binding between nectin-1 and a polypeptide of SEQ ID NO: 24 as it reads on a polypeptide; classified in Class 435, subclass 7.1.
- CXXXVI. Claims 29-30, drawn to a method of identifying an agent that modulates binding between nectin-1 and a polypeptide of SEQ ID NO: 24 as it reads on an antibody; classified in Class 435, subclass 7.1.
- CXXXVII. Claims 29-30, drawn to a method of identifying an agent that modulates binding between nectin-1 and a polypeptide of SEQ ID NO: 24 as it reads on a peptidomimetic; classified in Class 435, subclass 7.1.
- CXXXVIII. Claims 29-30, drawn to a method of identifying an agent that modulates binding between nectin-1 and a polypeptide of SEQ ID NO: 24 as it reads on a small molecule; classified in Class 435, subclass 7.1.
- CXXXIX. Claims 29-30, drawn to a method of identifying an agent that modulates binding between nectin-1 and a polypeptide of SEQ ID NO: 31 as it reads on a polypeptide; classified in Class 435, subclass 7.1.

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- CXL. Claims 29-30, drawn to a method of identifying an agent that modulates binding between nectin-1 and a polypeptide of SEQ ID NO: 31 as it reads on an antibody; classified in Class 435, subclass 7.1.
- CXLI. Claims 29-30, drawn to a method of identifying an agent that modulates binding between nectin-1 and a polypeptide of SEQ ID NO: 31 as it reads on a peptidomimetic; classified in Class 435, subclass 7.1.
- CXLII. Claims 29-30, drawn to a method of identifying an agent that modulates binding between nectin-1 and a polypeptide of SEQ ID NO: 31 as it reads on a small molecule; classified in Class 435, subclass 7.1.
- CXLIII. Claims 29-30, drawn to a method of identifying an agent that modulates binding between nectin-1 and a polypeptide of SEQ ID NO: 34 as it reads on a polypeptide; classified in Class 435, subclass 7.1.
- CXLIV. Claims 29-30, drawn to a method of identifying an agent that modulates binding between nectin-1 and a polypeptide of SEQ ID NO: 34 as it reads on an antibody; classified in Class 435, subclass 7.1.
- CXLV. Claims 29-30, drawn to a method of identifying an agent that modulates binding between nectin-1 and a polypeptide of SEQ ID NO: 34 as it reads on a peptidomimetic; classified in Class 435, subclass 7.1.
- CXLVI. Claims 29-30, drawn to a method of identifying an agent that modulates binding between nectin-1 and a polypeptide of SEQ ID NO: 34 as it reads on a small molecule; classified in Class 435, subclass 7.1.
- CXLVII. Claims 29-30, drawn to a method of identifying an agent that modulates binding between nectin-1 and a polypeptide of SEQ ID NO: 37 as it reads on a polypeptide; classified in Class 435, subclass 7.1.
- CXLVIII. Claims 29-30, drawn to a method of identifying an agent that modulates binding between nectin-1 and a polypeptide of SEQ ID NO: 37 as it reads on an antibody; classified in Class 435, subclass 7.1.
- CXLIX. Claims 29-30, drawn to a method of identifying an agent that modulates binding between nectin-1 and a polypeptide of SEQ ID NO: 37 as it reads on a peptidomimetic; classified in Class 435, subclass 7.1.
- CL. Claims 29-30, drawn to a method of identifying an agent that modulates binding between nectin-1 and a polypeptide of SEQ ID NO: 37 as it reads on a small molecule; classified in Class 435, subclass 7.1.
- CLI. Claims 29-30, drawn to a method of identifying an agent that modulates binding between nectin-1 and a polypeptide of SEQ ID NO: 38 as it reads on a polypeptide; classified in Class 435, subclass 7.1.

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- CLII. Claims 29-30, drawn to a method of identifying an agent that modulates binding between nectin-1 and a polypeptide of SEQ ID NO: 38 as it reads on an antibody; classified in Class 435, subclass 7.1.
- CLIII. Claims 29-30, drawn to a method of identifying an agent that modulates binding between nectin-I and a polypeptide of SEQ ID NO: 38 as it reads on a peptidomimetic; classified in Class 435, subclass 7.1.
- CLIV. Claims 29-30, drawn to a method of identifying an agent that modulates binding between nectin-I and a polypeptide of SEQ ID NO: 38 as it reads on a small molecule; classified in Class 435, subclass 7.1.
- CLV. Claims 29-30, drawn to a method of identifying an agent that modulates binding between nectin-1 and a polypeptide of SEQ ID NO: 39 as it reads on a polypeptide; classified in Class 435, subclass 7.1.
- CLVI. Claims 29-30, drawn to a method of identifying an agent that modulates binding between nectin-I and a polypeptide of SEQ ID NO: 39 as it reads on an antibody; classified in Class 435, subclass 7.1.
- CLVII. Claims 29-30, drawn to a method of identifying an agent that modulates binding between nectin-I and a polypeptide of SEQ ID NO: 39 as it reads on a peptidomimetic; classified in Class 435, subclass 7.1.
- CLVIII. Claims 29-30, drawn to a method of identifying an agent that modulates binding between nectin-1 and a polypeptide of SEQ ID NO: 39 as it reads on a small molecule; classified in Class 435, subclass 7.1.
- CLIX. Claims 31-36, drawn to a method of modulating an activity comprising contacting a cell with an agent, wherein the agent is a polypeptide of SEQ ID NO: 2 as it reads on a peptide; classified in Class 435, subclass 7.1.
- CLX. Claims 31-36, drawn to a method of modulating an activity comprising contacting a cell with an agent, wherein the agent is a polypeptide of SEQ ID NO: 2 as it reads on a polypeptide; classified in Class 435, subclass 7.1.
- CLXI. Claims 31-36, drawn to a method of modulating an activity comprising contacting a cell with an agent, wherein the agent is a polypeptide of SEQ ID NO: 2 as it reads on a peptidomimetic; classified in Class 435, subclass 7.1.
- CLXII. Claims 31-36, drawn to a method of modulating an activity comprising contacting a cell with an agent, wherein the agent is a polypeptide of SEQ ID NO: 2 as it reads on a polynucleotide; classified in Class 435, subclass 6.
- CLXIII. Claims 31-36, drawn to a method of modulating an activity comprising contacting a cell with an agent, wherein the agent is a polypeptide of SEQ ID NO: 2 as it reads on an antibody; classified in Class 435, subclass 7.1.

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- CLXIV. Claims 31-36, drawn to a method of modulating an activity comprising contacting a cell with an agent, wherein the agent is a polypeptide of SEQ ID NO: 2 as it reads on a small molecule; classified in Class 435, subclass 7.1.
- CLXV. Claims 31-36, drawn to a method of modulating an activity comprising contacting a cell with an agent, wherein the agent is a polypeptide of SEQ ID NO: 4 as it reads on a peptide; classified in Class 435, subclass 7.1.
- CLXVI. Claims 31-36, drawn to a method of modulating an activity comprising contacting a cell with an agent, wherein the agent is a polypeptide of SEQ ID NO: 4 as it reads on a polypeptide; classified in Class 435, subclass 7.1.
- CLXVII. Claims 31-36, drawn to a method of modulating an activity comprising contacting a cell with an agent, wherein the agent is a polypeptide of SEQ ID NO: 4 as it reads on a peptidomimetic; classified in Class 435, subclass 7.1.
- CLXVIII. Claims 31-36, drawn to a method of modulating an activity comprising contacting a cell with an agent, wherein the agent is a polypeptide of SEQ ID NO: 4 as it reads on a polynucleotide; classified in Class 435, subclass 6.
- CLXIX. Claims 31-36, drawn to a method of modulating an activity comprising contacting a cell with an agent, wherein the agent is a polypeptide of SEQ ID NO: 4 as it reads on an antibody; classified in Class 435, subclass 7.1.
- CLXX. Claims 31-36, drawn to a method of modulating an activity comprising contacting a cell with an agent, wherein the agent is a polypeptide of SEQ ID NO: 4 as it reads on a small molecule; classified in Class 435, subclass 7.1.
- CLXXI. Claims 31-36, drawn to a method of modulating an activity comprising contacting a cell with an agent, wherein the agent is a polypeptide of SEQ ID NO: 6 as it reads on a peptide; classified in Class 435, subclass 7.1.
- CLXXII. Claims 31-36, drawn to a method of modulating an activity comprising contacting a cell with an agent, wherein the agent is a polypeptide of SEQ ID NO: 6 as it reads on a polypeptide; classified in Class 435, subclass 7.1.
- CLXXIII. Claims 31-36, drawn to a method of modulating an activity comprising contacting a cell with an agent, wherein the agent is a polypeptide of SEQ ID NO: 6 as it reads on a peptidomimetic; classified in Class 435, subclass 7.1.
- CLXXIV. Claims 31-36, drawn to a method of modulating an activity comprising contacting a cell with an agent, wherein the agent is a polypeptide of SEQ ID NO: 6 as it reads on a polynucleotide; classified in Class 435, subclass 6.
- CLXXV. Claims 31-36, drawn to a method of modulating an activity comprising contacting a cell with an agent, wherein the agent is a polypeptide of SEQ ID NO: 6 as it reads on an antibody; classified in Class 435, subclass 7.1.

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CLXXVI. Claims 31-36, drawn to a method of modulating an activity comprising contacting a cell with an agent, wherein the agent is a polypeptide of SEQ ID NO: 6 as it reads on a small molecule; classified in Class 435, subclass 7.1.

CLXXVII. Claims 31-36, drawn to a method of modulating an activity comprising contacting a cell with an agent, wherein the agent is a polypeptide of SEQ ID NO: 8 as it reads on a peptide; classified in Class 435, subclass 7.1.

CLXXVIII. Claims 31-36, drawn to a method of modulating an activity comprising contacting a cell with an agent, wherein the agent is a polypeptide of SEQ ID NO: 8 as it reads on a polypeptide; classified in Class 435, subclass 7.1.

CLXXIX. Claims 31-36, drawn to a method of modulating an activity comprising contacting a cell with an agent, wherein the agent is a polypeptide of SEQ ID NO: 8 as it reads on a peptidomimetic; classified in Class 435, subclass 7.1.

CLXXX. Claims 31-36, drawn to a method of modulating an activity comprising contacting a cell with an agent, wherein the agent is a polypeptide of SEQ ID NO: 8 as it reads on a polynucleotide; classified in Class 435, subclass 6.

CLXXXI. Claims 31-36, drawn to a method of modulating an activity comprising contacting a cell with an agent, wherein the agent is a polypeptide of SEQ ID NO: 8 as it reads on an antibody; classified in Class 435, subclass 7.1.

CLXXXII. Claims 31-36, drawn to a method of modulating an activity comprising contacting a cell with an agent, wherein the agent is a polypeptide of SEQ ID NO: 8 as it reads on a small molecule; classified in Class 435, subclass 7.1.

CLXXXIII. Claims 31-36, drawn to a method of modulating an activity comprising contacting a cell with an agent, wherein the agent is a polypeptide of SEQ ID NO: 10 as it reads on a peptide; classified in Class 435, subclass 7.1.

CLXXXIV. Claims 31-36, drawn to a method of modulating an activity comprising contacting a cell with an agent, wherein the agent is a polypeptide of SEQ ID NO: 10 as it reads on a polypeptide; classified in Class 435, subclass 7.1.

CLXXXV. Claims 31-36, drawn to a method of modulating an activity comprising contacting a cell with an agent, wherein the agent is a polypeptide of SEQ ID NO: 10 as it reads on a peptidomimetic; classified in Class 435, subclass 7.1.

CLXXXVI. Claims 31-36, drawn to a method of modulating an activity comprising contacting a cell with an agent, wherein the agent is a polypeptide of SEQ ID NO: 10 as it reads on a polynucleotide; classified in Class 435, subclass 6.

CLXXXVII. Claims 31-36, drawn to a method of modulating an activity comprising contacting a cell with an agent, wherein the agent is a polypeptide of SEQ ID NO: 10 as it reads on an antibody; classified in Class 435, subclass 7.1.

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- CLXXXVIII. Claims 31-36, drawn to a method of modulating an activity comprising contacting a cell with an agent, wherein the agent is a polypeptide of SEQ ID NO: 10 as it reads on a small molecule; classified in Class 435, subclass 7.1.
- CLXXXIX. Claims 31-36, drawn to a method of modulating an activity comprising contacting a cell with an agent, wherein the agent is a polypeptide of SEQ ID NO: 12 as it reads on a peptide; classified in Class 435, subclass 7.1.
- CXC. Claims 31-36, drawn to a method of modulating an activity comprising contacting a cell with an agent, wherein the agent is a polypeptide of SEQ ID NO: 12 as it reads on a polypeptide; classified in Class 435, subclass 7.1.
- CXCI. Claims 31-36, drawn to a method of modulating an activity comprising contacting a cell with an agent, wherein the agent is a polypeptide of SEQ ID NO: 12 as it reads on a peptidomimetic; classified in Class 435, subclass 7.1.
- CXCII. Claims 31-36, drawn to a method of modulating an activity comprising contacting a cell with an agent, wherein the agent is a polypeptide of SEQ ID NO: 12 as it reads on a polynucleotide; classified in Class 435, subclass 6.
- CXCIII. Claims 31-36, drawn to a method of modulating an activity comprising contacting a cell with an agent, wherein the agent is a polypeptide of SEQ ID NO: 12 as it reads on an antibody; classified in Class 435, subclass 7.1.
- CXCIV. Claims 31-36, drawn to a method of modulating an activity comprising contacting a cell with an agent, wherein the agent is a polypeptide of SEQ ID NO: 12 as it reads on a small molecule; classified in Class 435, subclass 7.1.
- CXCV. Claims 31-36, drawn to a method of modulating an activity comprising contacting a cell with an agent, wherein the agent is a polypeptide of SEQ ID NO: 24 as it reads on a peptide; classified in Class 435, subclass 7.1.
- CXCVI. Claims 31-36, drawn to a method of modulating an activity comprising contacting a cell with an agent, wherein the agent is a polypeptide of SEQ ID NO: 24 as it reads on a polypeptide; classified in Class 435, subclass 7.1.
- CXCVII. Claims 31-36, drawn to a method of modulating an activity comprising contacting a cell with an agent, wherein the agent is a polypeptide of SEQ ID NO: 24 as it reads on a peptidomimetic; classified in Class 435, subclass 7.1.
- CXCVIII. Claims 31-36, drawn to a method of modulating an activity comprising contacting a cell with an agent, wherein the agent is a polypeptide of SEQ ID NO: 24 as it reads on a polynucleotide; classified in Class 435, subclass 6.
- CXCIX. Claims 31-36, drawn to a method of modulating an activity comprising contacting a cell with an agent, wherein the agent is a polypeptide of SEQ ID NO: 24 as it reads on an antibody; classified in Class 435, subclass 7.1.

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- CC. Claims 31-36, drawn to a method of modulating an activity comprising contacting a cell with an agent, wherein the agent is a polypeptide of SEQ ID NO: 24 as it reads on a small molecule; classified in Class 435, subclass 7.1.
- CCI. Claims 31-36, drawn to a method of modulating an activity comprising contacting a cell with an agent, wherein the agent is a polypeptide of SEQ ID NO: 31 as it reads on a peptide; classified in Class 435, subclass 7.1.
- CCII. Claims 31-36, drawn to a method of modulating an activity comprising contacting a cell with an agent, wherein the agent is a polypeptide of SEQ ID NO: 31 as it reads on a polypeptide; classified in Class 435, subclass 7.1.
- CCIII. Claims 31-36, drawn to a method of modulating an activity comprising contacting a cell with an agent, wherein the agent is a polypeptide of SEQ ID NO: 31 as it reads on a peptidomimetic; classified in Class 435, subclass 7.1.
- CCIV. Claims 31-36, drawn to a method of modulating an activity comprising contacting a cell with an agent, wherein the agent is a polypeptide of SEQ ID NO: 31 as it reads on a polynucleotide; classified in Class 435, subclass 6.
- CCV. Claims 31-36, drawn to a method of modulating an activity comprising contacting a cell with an agent, wherein the agent is a polypeptide of SEQ ID NO: 31 as it reads on an antibody; classified in Class 435, subclass 7.1.
- CCVI. Claims 31-36, drawn to a method of modulating an activity comprising contacting a cell with an agent, wherein the agent is a polypeptide of SEQ ID NO: 31 as it reads on a small molecule; classified in Class 435, subclass 7.1.
- CCVII. Claims 31-36, drawn to a method of modulating an activity comprising contacting a cell with an agent, wherein the agent is a polypeptide of SEQ ID NO: 34 as it reads on a peptide; classified in Class 435, subclass 7.1.
- CCVIII. Claims 31-36, drawn to a method of modulating an activity comprising contacting a cell with an agent, wherein the agent is a polypeptide of SEQ ID NO: 34 as it reads on a polypeptide; classified in Class 435, subclass 7.1.
- CCIX. Claims 31-36, drawn to a method of modulating an activity comprising contacting a cell with an agent, wherein the agent is a polypeptide of SEQ ID NO: 34 as it reads on a peptidomimetic; classified in Class 435, subclass 7.1.
- CCX. Claims 31-36, drawn to a method of modulating an activity comprising contacting a cell with an agent, wherein the agent is a polypeptide of SEQ ID NO: 34 as it reads on a polynucleotide; classified in Class 435, subclass 6.
- CCXI. Claims 31-36, drawn to a method of modulating an activity comprising contacting a cell with an agent, wherein the agent is a polypeptide of SEQ ID NO: 34 as it reads on an antibody; classified in Class 435, subclass 7.1.

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- CCXII. Claims 31-36, drawn to a method of modulating an activity comprising contacting a cell with an agent, wherein the agent is a polypeptide of SEQ ID NO: 34 as it reads on a small molecule; classified in Class 435, subclass 7.1.
- CCXIII. Claims 31-36, drawn to a method of modulating an activity comprising contacting a cell with an agent, wherein the agent is a polypeptide of SEQ ID NO: 37 as it reads on a peptide; classified in Class 435, subclass 7.1.
- CCXIV. Claims 31-36, drawn to a method of modulating an activity comprising contacting a cell with an agent, wherein the agent is a polypeptide of SEQ ID NO: 37 as it reads on a polypeptide; classified in Class 435, subclass 7.1.
- CCXV. Claims 31-36, drawn to a method of modulating an activity comprising contacting a cell with an agent, wherein the agent is a polypeptide of SEQ ID NO: 37 as it reads on a peptidomimetic; classified in Class 435, subclass 7.1.
- CCXVI. Claims 31-36, drawn to a method of modulating an activity comprising contacting a cell with an agent, wherein the agent is a polypeptide of SEQ ID NO: 37 as it reads on a polynucleotide; classified in Class 435, subclass 6.
- CCXVII. Claims 31-36, drawn to a method of modulating an activity comprising contacting a cell with an agent, wherein the agent is a polypeptide of SEQ ID NO: 37 as it reads on an antibody; classified in Class 435, subclass 7.1.
- CCXVIII. Claims 31-36, drawn to a method of modulating an activity comprising contacting a cell with an agent, wherein the agent is a polypeptide of SEQ ID NO: 37 as it reads on a small molecule; classified in Class 435, subclass 7.1.
- CCXIX. Claims 31-36, drawn to a method of modulating an activity comprising contacting a cell with an agent, wherein the agent is a polypeptide of SEQ ID NO: 38 as it reads on a peptide; classified in Class 435, subclass 7.1.
- CCXX. Claims 31-36, drawn to a method of modulating an activity comprising contacting a cell with an agent, wherein the agent is a polypeptide of SEQ ID NO: 38 as it reads on a polypeptide; classified in Class 435, subclass 7.1.
- CCXXI. Claims 31-36, drawn to a method of modulating an activity comprising contacting a cell with an agent, wherein the agent is a polypeptide of SEQ ID NO: 38 as it reads on a peptidomimetic; classified in Class 435, subclass 7.1.
- CCXXII. Claims 31-36, drawn to a method of modulating an activity comprising contacting a cell with an agent, wherein the agent is a polypeptide of SEQ ID NO: 38 as it reads on a polynucleotide; classified in Class 435, subclass 6.
- CCXXIII. Claims 31-36, drawn to a method of modulating an activity comprising contacting a cell with an agent, wherein the agent is a polypeptide of SEQ ID NO: 38 as it reads on an antibody; classified in Class 435, subclass 7.1.

- CCXXIV. Claims 31-36, drawn to a method of modulating an activity comprising contacting a cell with an agent, wherein the agent is a polypeptide of SEQ ID NO: 38 as it reads on a small molecule; classified in Class 435, subclass 7.1.
- CCXXV. Claims 31-36, drawn to a method of modulating an activity comprising contacting a cell with an agent, wherein the agent is a polypeptide of SEQ ID NO: 39 as it reads on a peptide; classified in Class 435, subclass 7.1.
- CCXXVI. Claims 31-36, drawn to a method of modulating an activity comprising contacting a cell with an agent, wherein the agent is a polypeptide of SEQ ID NO: 39 as it reads on a polypeptide; classified in Class 435, subclass 7.1.
- CCXXVII. Claims 31-36, drawn to a method of modulating an activity comprising contacting a cell with an agent, wherein the agent is a polypeptide of SEQ ID NO: 39 as it reads on a peptidomimetic; classified in Class 435, subclass 7.1.
- CCXXVIII. Claims 31-36, drawn to a method of modulating an activity comprising contacting a cell with an agent, wherein the agent is a polypeptide of SEQ ID NO: 39 as it reads on a polynucleotide; classified in Class 435, subclass 6.
- CCXXIX. Claims 31-36, drawn to a method of modulating an activity comprising contacting a cell with an agent, wherein the agent is a polypeptide of SEQ ID NO: 39 as it reads on an antibody; classified in Class 435, subclass 7.1.
- CCXXX. Claims 31-36, drawn to a method of modulating an activity comprising contacting a cell with an agent, wherein the agent is a polypeptide of SEQ ID NO: 39 as it reads on a small molecule; classified in Class 435, subclass 7.1.
- CCXXXI. Claims 37-38 and 50-53, drawn to a method of inhibiting angiogenesis in a mammal comprising administering to the mammal a polypeptide of SEQ ID NO: 2; classified in Class 514, subclass 2.
- CCXXXII. Claims 37-38 and 50-53, drawn to a method of inhibiting angiogenesis in a mammal comprising administering to the mammal a polypeptide of SEQ ID NO: 4; classified in Class 514, subclass 2.
- CCXXXIII. Claims 37-38 and 50-53, drawn to a method of inhibiting angiogenesis in a mammal comprising administering to the mammal a polypeptide of SEQ ID NO: 6; classified in Class 514, subclass 2.
- CCXXXIV. Claims 37-38 and 50-53, drawn to a method of inhibiting angiogenesis in a mammal comprising administering to the mammal a polypeptide of SEQ ID NO: 8; classified in Class 514, subclass 2.
- CCXXXV. Claims 37-38 and 50-53, drawn to a method of inhibiting angiogenesis in a mammal comprising administering to the mammal a polypeptide of SEQ ID NO: 10; classified in Class 514, subclass 2.

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- CCXXXVI. Claims 37-38 and 50-53, drawn to a method of inhibiting angiogenesis in a mammal comprising administering to the mammal a polypeptide of SEQ ID NO: 12; classified in Class 514, subclass 2.
- CCXXXVII. Claims 37-38 and 50-53, drawn to a method of inhibiting angiogenesis in a mammal comprising administering to the mammal a polypeptide of SEQ ID NO: 24; classified in Class 514, subclass 2.
- CCXXXVIII. Claims 37-38 and 50-53, drawn to a method of inhibiting angiogenesis in a mammal comprising administering to the mammal a polypeptide of SEQ ID NO: 31; classified in Class 514, subclass 2.
- CCXXXIX. Claims 37-38 and 50-53, drawn to a method of inhibiting angiogenesis in a mammal comprising administering to the mammal a polypeptide of SEQ ID NO: 34; classified in Class 514, subclass 2.
- CCXL. Claims 37-38 and 50-53, drawn to a method of inhibiting angiogenesis in a mammal comprising administering to the mammal a polypeptide of SEQ ID NO: 37; classified in Class 514, subclass 2.
- CCXLI. Claims 37-38 and 50-53, drawn to a method of inhibiting angiogenesis in a mammal comprising administering to the mammal a polypeptide of SEQ ID NO: 38; classified in Class 514, subclass 2.
- CCXLII. Claims 37-38 and 50-53, drawn to a method of inhibiting angiogenesis in a mammal comprising administering to the mammal a polypeptide of SEQ ID NO: 39; classified in Class 514, subclass 2.
- CCXLIII. Claims 39-42, drawn to a method of treating an endothelial proliferation condition comprising contacting a tissue or a subject *in vitro* with SEQ ID NO: 2, classified in Class 435, subclass 7.1.
- CCXLIV. Claims 39-42, drawn to a method of treating an endothelial migration, comprising contacting a tissue or a subject *in vitro* with SEQ ID NO: 2, classified in Class 435, subclass 7.1.
- CCXLV. Claims 39-42, drawn to a method of treating an endothelial angiogenic condition, comprising contacting a tissue or a subject *in vitro* with SEQ ID NO: 2, classified in Class 435, subclass 7.1.
- CCXLVI. Claims 39-42, drawn to a method of treating an endothelial proliferation condition comprising contacting a tissue or a subject *in vitro* with SEQ ID NO: 4, classified in Class 435, subclass 7.1.
- CCXLVII. Claims 39-42, drawn to a method of treating an endothelial migration condition comprising contacting a tissue or a subject *in vitro* with SEQ ID NO: 4, classified in Class 435, subclass 7.1.

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- CCXLVIII. Claims 39-42, drawn to a method of treating an endothelial angiogenic condition, comprising contacting a tissue or a subject *in vitro* with SEQ ID NO: 4, classified in Class 435, subclass 7.1.
- CCXLIX. Claims 39-42, drawn to a method of treating an endothelial proliferation condition comprising contacting a tissue or a subject *in vitro* with SEQ ID NO: 6, classified in Class 435, subclass 7.1.
- CCL. Claims 39-42, drawn to a method of treating an migration condition comprising contacting a tissue or a subject *in vitro* with SEQ ID NO: 6, classified in Class 435, subclass 7.1.
- CCLI. Claims 39-42, drawn to a method of treating an endothelial angiogenic condition, comprising contacting a tissue or a subject *in vitro* with SEQ ID NO: 6, classified in Class 435, subclass 7.1.
- CCLII. Claims 39-42, drawn to a method of treating an endothelial proliferation condition comprising contacting a tissue or a subject *in vitro* with SEQ ID NO: 8, classified in Class 435, subclass 7.1.
- CCLIII. Claims 39-42, drawn to a method of treating an endothelial migration condition comprising contacting a tissue or a subject *in vitro* with SEQ ID NO: 8, classified in Class 435, subclass 7.1.
- CCLIV. Claims 39-42, drawn to a method of treating an endothelial angiogenic condition, comprising contacting a tissue or a subject *in vitro* with SEQ ID NO: 8, classified in Class 435, subclass 7.1.
- CCLV. Claims 39-42, drawn to a method of treating an endothelial proliferation condition comprising contacting a tissue or a subject *in vitro* with SEQ ID NO: 10, classified in Class 435, subclass 7.1.
- CCLVI. Claims 39-42, drawn to a method of treating an endothelial migration condition comprising contacting a tissue or a subject *in vitro* with SEQ ID NO: 10, classified in Class 435, subclass 7.1.
- CCLVII. Claims 39-42, drawn to a method of treating an endothelial angiogenic condition, comprising contacting a tissue or a subject *in vitro* with SEQ ID NO: 10, classified in Class 435, subclass 7.1.
- CCLVIII. Claims 39-42, drawn to a method of treating an endothelial proliferation condition comprising contacting a tissue or a subject *in vitro* with SEQ ID NO: 12, classified in Class 435, subclass 7.1.
- CCLIX. Claims 39-42, drawn to a method of treating an endothelial migration condition comprising contacting a tissue or a subject *in vitro* with SEQ ID NO: 12, classified in Class 435, subclass 7.1.

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CCLX. Claims 39-42, drawn to a method of treating an endothelial angiogenic condition, comprising contacting a tissue or a subject *in vitro* with SEQ ID NO: 12, classified in Class 435, subclass 7.1.

CCLXI. Claims 39-42, drawn to a method of treating an endothelial proliferation condition comprising contacting a tissue or a subject *in vitro* with SEQ ID NO: 24, classified in Class 435, subclass 7.1.

CCLXII. Claims 39-42, drawn to a method of treating an endothelial migration condition comprising contacting a tissue or a subject *in vitro* with SEQ ID NO: 24, classified in Class 435, subclass 7.1.

CCLXIII. Claims 39-42, drawn to a method of treating an endothelial angiogenic condition, comprising contacting a tissue or a subject *in vitro* with SEQ ID NO: 24, classified in Class 435, subclass 7.1.

CCLXIV. Claims 39-42, drawn to a method of treating an endothelial proliferation condition comprising contacting a tissue or a subject *in vitro* with SEQ ID NO: 31, classified in Class 435, subclass 7.1.

CCLXV. Claims 39-42, drawn to a method of treating an endothelial migration condition comprising contacting a tissue or a subject *in vitro* with SEQ ID NO: 31, classified in Class 435, subclass 7.1.

CCLXVI. Claims 39-42, drawn to a method of treating an endothelial angiogenic condition, comprising contacting a tissue or a subject *in vitro* with SEQ ID NO: 31, classified in Class 435, subclass 7.1.

CCLXVII. Claims 39-42, drawn to a method of treating an endothelial proliferation condition, comprising contacting a tissue or a subject *in vitro* with SEQ ID NO: 34, classified in Class 435, subclass 7.1.

CCLXVIII. Claims 39-42, drawn to a method of treating an endothelial migration condition, comprising contacting a tissue or a subject *in vitro* with SEQ ID NO: 34, classified in Class 435, subclass 7.1.

CCLXIX. Claims 39-42, drawn to a method of treating an endothelial angiogenic condition, comprising contacting a tissue or a subject *in vitro* with SEQ ID NO: 34, classified in Class 435, subclass 7.1.

CCLXX. Claims 39-42, drawn to a method of treating an endothelial proliferation condition, comprising contacting a tissue or a subject *in vitro* with SEQ ID NO: 37, classified in Class 435, subclass 7.1.

CCLXXI. Claims 39-42, drawn to a method of treating an endothelial migration condition, comprising contacting a tissue or a subject *in vitro* with SEQ ID NO: 37, classified in Class 435, subclass 7.1.

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- CCLXXII. Claims 39-42, drawn to a method of treating an endothelial angiogenic condition, comprising contacting a tissue or a subject *in vitro* with SEQ ID NO: 37, classified in Class 435, subclass 7.1.
- CCLXXIII. Claims 39-42, drawn to a method of treating an endothelial proliferation condition, comprising contacting a tissue or a subject *in vitro* with SEQ ID NO: 38, classified in Class 435, subclass 7.1.
- CCLXXIV. Claims 39-42, drawn to a method of treating an endothelial migration condition, comprising contacting a tissue or a subject *in vitro* with SEQ ID NO: 38, classified in Class 435, subclass 7.1.
- CCLXXV. Claims 39-42, drawn to a method of treating an endothelial angiogenic condition, comprising contacting a tissue or a subject *in vitro* with SEQ ID NO: 38, classified in Class 435, subclass 7.1.
- CCLXXVI. Claims 39-42, drawn to a method of treating an endothelial proliferation condition comprising contacting a tissue or a subject *in vitro* with SEQ ID NO: 39, classified in Class 435, subclass 7.1.
- CCLXXVII. Claims 39-42, drawn to a method of treating an endothelial migration condition, comprising contacting a tissue or a subject *in vitro* with SEQ ID NO: 39, classified in Class 435, subclass 7.1.
- CCLXXVIII. Claims 39-42, drawn to a method of treating an endothelial angiogenic condition, comprising contacting a tissue or a subject *in vitro* with SEQ ID NO: 39, classified in Class 435, subclass 7.1.
- CCLXXIX. Claims 39-41 and 43, drawn to a method of treating an endothelial proliferation condition comprising contacting a tissue or a subject *in vivo* with SEQ ID NO: 2, classified in Class 435, subclass 7.1.
- CCLXXX. Claims 39-41 and 43, drawn to a method of treating an endothelial migration condition comprising contacting a tissue or a subject *in vivo* with SEQ ID NO: 2, classified in Class 435, subclass 7.1.
- CCLXXXI. Claims 39-41 and 43, drawn to a method of treating an endothelial angiogenic condition, comprising contacting a tissue or a subject *in vivo* with SEQ ID NO: 2, classified in Class 435, subclass 7.1.
- CCLXXXII. Claims 39-41 and 43, drawn to a method of treating an endothelial proliferation condition, comprising contacting a tissue or a subject *in vivo* with SEQ ID NO: 4, classified in Class 435, subclass 7.1.
- CCLXXXIII. Claims 39-41 and 43, drawn to a method of treating an endothelial migration condition, comprising contacting a tissue or a subject *in vivo* with SEQ ID NO: 4, classified in Class 435, subclass 7.1.

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- CCLXXXIV. Claims 39-41 and 43, drawn to a method of treating an endothelial angiogenic condition, comprising contacting a tissue or a subject *in vivo* with SEQ ID NO: 4, classified in Class 435, subclass 7.1.
- CCLXXXV. Claims 39-41 and 43, drawn to a method of treating an endothelial proliferation condition, comprising contacting a tissue or a subject *in vivo* with SEQ ID NO: 6, classified in Class 435, subclass 7.1.
- CCLXXXVI. Claims 39-41 and 43, drawn to a method of treating an endothelial migration condition comprising contacting a tissue or a subject *in vivo* with SEQ ID NO: 6, classified in Class 435, subclass 7.1.
- CCLXXXVII. Claims 39-41 and 43, drawn to a method of treating an endothelial angiogenic condition, comprising contacting a tissue or a subject *in vivo* with SEQ ID NO: 6, classified in Class 435, subclass 7.1.
- CCLXXXVIII. Claims 39-41 and 43, drawn to a method of treating an endothelial proliferation condition comprising contacting a tissue or a subject *in vivo* with SEQ ID NO: 8, classified in Class 435, subclass 7.1.
- CCLXXXIX. Claims 39-41 and 43, drawn to a method of treating an endothelial migration condition comprising contacting a tissue or a subject *in vivo* with SEQ ID NO: 8, classified in Class 435, subclass 7.1.
- CCXC. Claims 39-41 and 43, drawn to a method of treating an endothelial angiogenic condition, comprising contacting a tissue or a subject *in vivo* with SEQ ID NO: 8, classified in Class 435, subclass 7.1.
- CCXCI. Claims 39-41 and 43, drawn to a method of treating an endothelial proliferation condition comprising contacting a tissue or a subject *in vivo* with SEQ ID NO: 10, classified in Class 435, subclass 7.1.
- CCXCII. Claims 39-41 and 43, drawn to a method of treating an endothelial migration condition comprising contacting a tissue or a subject *in vivo* with SEQ ID NO: 10, classified in Class 435, subclass 7.1.
- CCXCIII. Claims 39-41 and 43, drawn to a method of treating an endothelial angiogenic condition, comprising contacting a tissue or a subject *in vivo* with SEQ ID NO: 10, classified in Class 435, subclass 7.1.
- CCXCIV. Claims 39-41 and 43, drawn to a method of treating an endothelial proliferation condition comprising contacting a tissue or a subject *in vivo* with SEQ ID NO: 12, classified in Class 435, subclass 7.1.
- CCXCV. Claims 39-41 and 43, drawn to a method of treating an endothelial migration condition, comprising contacting a tissue or a subject *in vivo* with SEQ ID NO: 12, classified in Class 435, subclass 7.1.

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- CCXCVI. Claims 39-41 and 43, drawn to a method of treating an endothelial angiogenic condition, comprising contacting a tissue or a subject *in vivo* with SEQ ID NO: 12, classified in Class 435, subclass 7.1.
- CCXCVII. Claims 39-41 and 43, drawn to a method of treating an endothelial proliferation condition comprising contacting a tissue or a subject *in vivo* with SEQ ID NO: 24, classified in Class 435, subclass 7.1.
- CCXCVIII. Claims 39-41 and 43, drawn to a method of treating an endothelial migration condition comprising contacting a tissue or a subject *in vivo* with SEQ ID NO: 24, classified in Class 435, subclass 7.1.
- CCXCIX. Claims 39-41 and 43, drawn to a method of treating an endothelial angiogenic condition, comprising contacting a tissue or a subject *in vivo* with SEQ ID NO: 24, classified in Class 435, subclass 7.1.
- CCC. Claims 39-41 and 43, drawn to a method of treating an endothelial proliferation condition comprising contacting a tissue or a subject *in vivo* with SEQ ID NO: 31, classified in Class 435, subclass 7.1.
- CCCI. Claims 39-41 and 43, drawn to a method of treating an endothelial migration condition comprising contacting a tissue or a subject *in vivo* with SEQ ID NO: 31, classified in Class 435, subclass 7.1.
- CCCII. Claims 39-41 and 43, drawn to a method of treating an endothelial angiogenic condition, comprising contacting a tissue or a subject *in vivo* with SEQ ID NO: 31, classified in Class 435, subclass 7.1.
- CCCIII. Claims 39-41 and 43, drawn to a method of treating an endothelial proliferation condition comprising contacting a tissue or a subject *in vivo* with SEQ ID NO: 34, classified in Class 435, subclass 7.1.
- CCCIV. Claims 39-41 and 43, drawn to a method of treating an endothelial migration condition comprising contacting a tissue or a subject *in vivo* with SEQ ID NO: 34, classified in Class 435, subclass 7.1.
- CCCV. Claims 39-41 and 43, drawn to a method of treating an endothelial angiogenic condition, comprising contacting a tissue or a subject *in vivo* with SEQ ID NO: 34, classified in Class 435, subclass 7.1.
- CCCVI. Claims 39-41 and 43, drawn to a method of treating an endothelial proliferation condition comprising contacting a tissue or a subject *in vivo* with SEQ ID NO: 37, classified in Class 435, subclass 7.1.
- CCCVII. Claims 39-41 and 43, drawn to a method of treating an endothelial migration condition comprising contacting a tissue or a subject *in vivo* with SEQ ID NO: 37, classified in Class 435, subclass 7.1.

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- CCCVIII. Claims 39-41 and 43, drawn to a method of treating an endothelial angiogenic condition, comprising contacting a tissue or a subject *in vivo* with SEQ ID NO: 37, classified in Class 435, subclass 7.1.
- CCCIX. Claims 39-41 and 43, drawn to a method of treating an endothelial proliferation condition comprising contacting a tissue or a subject *in vivo* with SEQ ID NO: 38, classified in Class 435, subclass 7.1.
- CCCX. Claims 39-41 and 43, drawn to a method of treating an endothelial migration condition comprising contacting a tissue or a subject *in vivo* with SEQ ID NO: 38, classified in Class 435, subclass 7.1.
- CCCXI. Claims 39-41 and 43, drawn to a method of treating an endothelial angiogenic condition, comprising contacting a tissue or a subject *in vivo* with SEQ ID NO: 38, classified in Class 435, subclass 7.1.
- CCCXII. Claims 39-41 and 43, drawn to a method of treating an endothelial proliferation condition comprising contacting a tissue or a subject *in vivo* with SEQ ID NO: 39, classified in Class 435, subclass 7.1.
- CCCXIII. Claims 39-41 and 43, drawn to a method of treating an endothelial migration condition comprising contacting a tissue or a subject *in vivo* with SEQ ID NO: 39, classified in Class 435, subclass 7.1.
- CCCXIV. Claims 39-41 and 43, drawn to a method of treating an endothelial angiogenic condition, comprising contacting a tissue or a subject *in vivo* with SEQ ID NO: 39, classified in Class 435, subclass 7.1.
- CCCXV. Claims 44-45, drawn to a method for treating a viral infection comprising administering a polypeptide of SEQ ID NO: 2; classified in Class 514, subclass 2.
- CCCXVI. Claims 44-45, drawn to a method for treating a viral infection comprising administering a polypeptide of SEQ ID NO: 4; classified in Class 514, subclass 2.
- CCCXVII. Claims 44-45, drawn to a method for treating a viral infection comprising administering a polypeptide of SEQ ID NO: 6; classified in Class 514, subclass 2.
- CCCXVIII. Claims 44-45, drawn to a method for treating a viral infection comprising administering a polypeptide of SEQ ID NO: 8; classified in Class 514, subclass 2.
- CCCXIX. Claims 44-45, drawn to a method for treating a viral infection comprising administering a polypeptide of SEQ ID NO: 10; classified in Class 514, subclass 2.
- CCCXX. Claims 44-45, drawn to a method for treating a viral infection comprising administering a polypeptide of SEQ ID NO: 12; classified in Class 514, subclass 2.
- CCCXXI. Claims 44-45, drawn to a method for treating a viral infection comprising administering a polypeptide of SEQ ID NO: 24; classified in Class 514, subclass 2.

- CCCXXII. Claims 44-45, drawn to a method for treating a viral infection comprising administering a polypeptide of SEQ ID NO: 31; classified in Class 514, subclass 2.
- CCCXXIII. Claims 44-45, drawn to a method for treating a viral infection comprising administering a polypeptide of SEQ ID NO: 34; classified in Class 514, subclass 2.
- CCCXXIV. Claims 44-45, drawn to a method for treating a viral infection comprising administering a polypeptide of SEQ ID NO: 37; classified in Class 514, subclass 2.
- CCCXXV. Claims 44-45, drawn to a method for treating a viral infection comprising administering a polypeptide of SEQ ID NO: 38; classified in Class 514, subclass 2.
- CCCXXVI. Claims 44-45, drawn to a method for treating a viral infection comprising administering a polypeptide of SEQ ID NO: 39; classified in Class 514, subclass 2.
- CCCXXVII. Claim 46, drawn to a method for increasing adherens junction formation activity, comprising contacting a cell with SEQ ID NO: 2; classified in Class 435, subclass 7.1.
- CCCXXVIII. Claim 46, drawn to a method for increasing epithelial barrier function activity, comprising contacting a cell with SEQ ID NO: 2; classified in Class 435, subclass 7.1.
- CCCXXIX. Claim 46, drawn to a method for increasing endothelial barrier function activity, comprising contacting a cell with SEQ ID NO: 2; classified in Class 435, subclass 7.1.
- CCCXXX. Claim 46, drawn to a method for increasing cell adhesion activity, comprising contacting a cell with SEQ ID NO: 2; classified in Class 435, subclass 7.1.
- CCCXXXI. Claim 46, drawn to a method for increasing adherens junction formation activity, comprising contacting a cell with SEQ ID NO: 4; classified in Class 435, subclass 7.1.
- CCCXXXII. Claim 46, drawn to a method for increasing epithelial barrier function activity, comprising contacting a cell with SEQ ID NO: 4; classified in Class 435, subclass 7.1.
- CCCXXXIII. Claim 46, drawn to a method for increasing endothelial barrier function activity, comprising contacting a cell with SEQ ID NO: 4; classified in Class 435, subclass 7.1.
- CCCXXXIV. Claim 46, drawn to a method for increasing cell adhesion activity, comprising contacting a cell with SEQ ID NO: 4 classified in Class 435, subclass 7.1.
- CCCXXXV. Claim 46, drawn to a method for increasing adherens junction formation activity, comprising contacting a cell with SEQ ID NO: 6; classified in Class 435, subclass 7.1.
- CCCXXXVI. Claim 46, drawn to a method for increasing epithelial barrier function activity, comprising contacting a cell with SEQ ID NO: 6; classified in Class 435, subclass 7.1.
- CCCXXXVII. Claim 46, drawn to a method for increasing endothelial barrier function activity, comprising contacting a cell with SEQ ID NO: 6; classified in Class 435, subclass 7.1.

- CCCXXXVIII. Claim 46, drawn to a method for increasing cell adhesion activity, comprising contacting a cell with SEQ ID NO: 6; classified in Class 435, subclass 7.1.
- CCCXXXIX. Claim 46, drawn to a method for increasing adherens junction formation activity, comprising contacting a cell with SEQ ID NO: 8; classified in Class 435, subclass 7.1.
- CCCXL. Claim 46, drawn to a method for increasing epithelial barrier function activity, comprising contacting a cell with SEQ ID NO: 8; classified in Class 435, subclass 7.1.
- CCCXLI. Claim 46, drawn to a method for increasing endothelial barrier function activity, comprising contacting a cell with SEQ ID NO: 8; classified in Class 435, subclass 7.1.
- CCCXLII. Claim 46, drawn to a method for increasing cell adhesion activity, comprising contacting a cell with SEQ ID NO: 8; classified in Class 435, subclass 7.1.
- CCCXLIII. Claim 46, drawn to a method for increasing adherens junction formation activity, comprising contacting a cell with SEQ ID NO: 10; classified in Class 435, subclass 7.1.
- CCCXLIV. Claim 46, drawn to a method for increasing epithelial barrier function activity, comprising contacting a cell with SEQ ID NO: 10; classified in Class 435, subclass 7.1.
- CCCXLV. Claim 46, drawn to a method for increasing endothelial barrier function activity, comprising contacting a cell with SEQ ID NO: 10; classified in Class 435, subclass 7.1.
- CCCXLVI. Claim 46, drawn to a method for increasing cell adhesion activity, comprising contacting a cell with SEQ ID NO: 10; classified in Class 435, subclass 7.1.
- CCCXLVII. Claim 46, drawn to a method for increasing adherens junction formation activity, comprising contacting a cell with SEQ ID NO: 12; classified in Class 435, subclass 7.1.
- CCCXLVIII. Claim 46, drawn to a method for increasing epithelial barrier function activity, comprising contacting a cell with SEQ ID NO: 12; classified in Class 435, subclass 7.1.
- CCCXLIX. Claim 46, drawn to a method for increasing endothelial barrier function activity, comprising contacting a cell with SEQ ID NO: 12; classified in Class 435, subclass 7.1.
- CCCL. Claim 46, drawn to a method for increasing cell adhesion activity, comprising contacting a cell with SEQ ID NO: 12; classified in Class 435, subclass 7.1.
- CCCLI. Claim 46, drawn to a method for increasing adherens junction formation activity, comprising contacting a cell with SEQ ID NO: 24; classified in Class 435, subclass 7.1.
- CCCLII. Claim 46, drawn to a method for increasing epithelial barrier function activity, comprising contacting a cell with SEQ ID NO: 24; classified in Class 435, subclass 7.1.
- CCCLIII. Claim 46, drawn to a method for increasing endothelial barrier function activity, comprising contacting a cell with SEQ ID NO: 24; classified in Class 435, subclass 7.1.

- CCCLIV. Claim 46, drawn to a method for increasing cell adhesion activity, comprising contacting a cell with SEQ ID NO: 24; classified in Class 435, subclass 7.1.
- CCCLV. Claim 46, drawn to a method for increasing adherens junction formation activity, comprising contacting a cell with SEQ ID NO: 31; classified in Class 435, subclass 7.1.
- CCCLVI. Claim 46, drawn to a method for increasing epithelial barrier function activity, comprising contacting a cell with SEQ ID NO: 31; classified in Class 435, subclass 7.1.
- CCCLVII. Claim 46, drawn to a method for increasing endothelial barrier function activity, comprising contacting a cell with SEQ ID NO: 31; classified in Class 435, subclass 7.1.
- CCCLVIII. Claim 46, drawn to a method for increasing cell adhesion activity, comprising contacting a cell with SEQ ID NO: 31; classified in Class 435, subclass 7.1.
- CCCLIX. Claim 46, drawn to a method for increasing adherens junction formation activity, comprising contacting a cell with SEQ ID NO: 34; classified in Class 435, subclass 7.1.
- CCCLX. Claim 46, drawn to a method for increasing epithelial barrier function activity, comprising contacting a cell with SEQ ID NO: 34; classified in Class 435, subclass 7.1.
- CCCLXI. Claim 46, drawn to a method for increasing endothelial barrier function activity, comprising contacting a cell with SEQ ID NO: 34; classified in Class 435, subclass 7.1.
- CCCLXII. Claim 46, drawn to a method for increasing cell adhesion activity, comprising contacting a cell with SEQ ID NO: 34; classified in Class 435, subclass 7.1.
- CCCLXIII. Claim 46, drawn to a method for increasing adherens junction formation activity, comprising contacting a cell with SEQ ID NO: 37; classified in Class 435, subclass 7.1.
- CCCLXIV. Claim 46, drawn to a method for increasing epithelial barrier function activity, comprising contacting a cell with SEQ ID NO: 37; classified in Class 435, subclass 7.1.
- CCCLXV. Claim 46, drawn to a method for increasing endothelial barrier function activity, comprising contacting a cell with SEQ ID NO: 37; classified in Class 435, subclass 7.1.
- CCCLXVI. Claim 46, drawn to a method for increasing cell adhesion activity, comprising contacting a cell with SEQ ID NO: 37; classified in Class 435, subclass 7.1.
- CCCLXVII. Claim 46, drawn to a method for increasing adherens junction formation activity, comprising contacting a cell with SEQ ID NO: 38; classified in Class 435, subclass 7.1.
- CCCLXVIII. Claim 46, drawn to a method for increasing epithelial barrier function activity, comprising contacting a cell with SEQ ID NO: 38; classified in Class 435, subclass 7.1.
- CCCLXIX. Claim 46, drawn to a method for increasing endothelial barrier function activity, comprising contacting a cell with SEQ ID NO: 38; classified in Class 435, subclass 7.1.

- CCCLXX. Claim 46, drawn to a method for increasing cell adhesion activity, comprising contacting a cell with SEQ ID NO: 38; classified in Class 435, subclass 7.1.
- CCCLXXI. Claim 46, drawn to a method for increasing adherens junction formation activity, comprising contacting a cell with SEQ ID NO: 39; classified in Class 435, subclass 7.1.
- CCCLXXII. Claim 46, drawn to a method for increasing epithelial barrier function activity, comprising contacting a cell with SEQ ID NO: 39; classified in Class 435, subclass 7.1.
- CCCLXXIII. Claim 46, drawn to a method for increasing endothelial barrier function activity, comprising contacting a cell with SEQ ID NO: 39; classified in Class 435, subclass 7.1.
- CCCLXXIV. Claim 47, drawn to a method for decreasing cell adhesion activity comprising contacting a cell with a polypeptide of SEQ ID NO:2; classified in Class 435, subclass 7.1.
- CCCLXXV. Claim 47, drawn to a method for decreasing adherens junction formation activity comprising contacting a cell with a polypeptide of SEQ ID NO:2; classified in Class 435, subclass 7.1.
- CCCLXXVI. Claim 47, drawn to a method for decreasing endothelial cell-proliferation comprising contacting a cell with a polypeptide of SEQ ID NO:2; classified in Class 435, subclass 7.1.
- CCCLXXVII. Claim 47, drawn to a method for decreasing epithelial cell-proliferation comprising contacting a cell with a polypeptide of SEQ ID NO:2; classified in Class 435, subclass 7.1.
- CCCLXXVIII. Claim 47, drawn to a method for decreasing smooth muscle cell-proliferation comprising contacting a cell with a polypeptide of SEQ ID NO:2; classified in Class 435, subclass 7.1.
- CCCLXXIX. Claim 47, drawn to a method for decreasing endothelial cell-migration activity comprising contacting a cell with a polypeptide of SEQ ID NO:2; classified in Class 435, subclass 7.1.
- CCCLXXX. Claim 47, drawn to a method for decreasing epithelial cell- migration activity comprising contacting a cell with a polypeptide of SEQ ID NO:2; classified in Class 435, subclass 7.1.
- CCCLXXXI. Claim 47, drawn to a method for decreasing smooth muscle cell- migration activity comprising contacting a cell with a polypeptide of SEQ ID NO:2; classified in Class 435, subclass 7.1.
- CCCLXXXII. Claim 47, drawn to a method for decreasing viral polypeptide binding activity comprising contacting a cell with a polypeptide of SEQ ID NO:2; classified in Class 435, subclass 7.1.

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CCCLXXXIII. Claim 47, drawn to a method for decreasing cell adhesion activity comprising contacting a cell with a polypeptide of SEQ ID NO:4; classified in Class 435, subclass 7.1.

CCCLXXXIV. Claim 47, drawn to a method for decreasing adherens junction formation activity comprising contacting a cell with a polypeptide of SEQ ID NO:4; classified in Class 435, subclass 7.1.

CCCLXXXV. Claim 47, drawn to a method for decreasing endothelial cell-proliferation comprising contacting a cell with a polypeptide of SEQ ID NO:4; classified in Class 435, subclass 7.1.

CCCLXXXVI. Claim 47, drawn to a method for decreasing epithelial cell-proliferation comprising contacting a cell with a polypeptide of SEQ ID NO:4; classified in Class 435, subclass 7.1.

CCCLXXXVII. Claim 47, drawn to a method for decreasing smooth muscle cell-proliferation comprising contacting a cell with a polypeptide of SEQ ID NO:4; classified in Class 435, subclass 7.1.

CCCLXXXVIII. Claim 47, drawn to a method for decreasing endothelial cell-migration activity comprising contacting a cell with a polypeptide of SEQ ID NO:4; classified in Class 435, subclass 7.1.

CCCLXXXIX. Claim 47, drawn to a method for decreasing epithelial cell- migration activity comprising contacting a cell with a polypeptide of SEQ ID NO:4; classified in Class 435, subclass 7.1.

CCCXC. Claim 47, drawn to a method for decreasing smooth muscle cell- migration activity comprising contacting a cell with a polypeptide of SEQ ID NO:4; classified in Class 435, subclass 7.1.

CCCXCI. Claim 47, drawn to a method for decreasing viral polypeptide binding activity comprising contacting a cell with a polypeptide of SEQ ID NO:4; classified in Class 435, subclass 7.1.

CCCXCII. Claim 47, drawn to a method for decreasing cell adhesion activity comprising contacting a cell with a polypeptide of SEQ ID NO:6; classified in Class 435, subclass 7.1.

CCCXCIII. Claim 47, drawn to a method for decreasing adherens junction formation activity comprising contacting a cell with a polypeptide of SEQ ID NO:6; classified in Class 435, subclass 7.1.

CCCXCIV. Claim 47, drawn to a method for decreasing endothelial cell-proliferation comprising contacting a cell with a polypeptide of SEQ ID NO:6; classified in Class 435, subclass 7.1.

CCCXCV. Claim 47, drawn to a method for decreasing epithelial cell-proliferation comprising contacting a cell with a polypeptide of SEQ ID NO:6; classified in Class 435, subclass 7.1.

- CCCXCVI. Claim 47, drawn to a method for decreasing smooth muscle cell-proliferation comprising contacting a cell with a polypeptide of SEQ ID NO:6; classified in Class 435, subclass 7.1.
- CCCXCVII. Claim 47, drawn to a method for decreasing endothelial cell-migration activity comprising contacting a cell with a polypeptide of SEQ ID NO:6; classified in Class 435, subclass 7.1.
- CCCXCVIII. Claim 47, drawn to a method for decreasing epithelial cell- migration activity comprising contacting a cell with a polypeptide of SEQ ID NO:6; classified in Class 435, subclass 7.1.
- CCCXCIX. Claim 47, drawn to a method for decreasing smooth muscle cell- migration activity comprising contacting a cell with a polypeptide of SEQ ID NO:6; classified in Class 435, subclass 7.1.
- CD. Claim 47, drawn to a method for decreasing viral polypeptide binding activity comprising contacting a cell with a polypeptide of SEQ ID NO:6; classified in Class 435, subclass 7.1.
- CDI. Claim 47, drawn to a method for decreasing cell adhesion activity comprising contacting a cell with a polypeptide of SEQ ID NO:8; classified in Class 435, subclass 7.1.
- CDII. Claim 47, drawn to a method for decreasing adherens junction formation activity comprising contacting a cell with a polypeptide of SEQ ID NO:8; classified in Class 435, subclass 7.1.
- CDIII. Claim 47, drawn to a method for decreasing endothelial cell-proliferation comprising contacting a cell with a polypeptide of SEQ ID NO:8; classified in Class 435, subclass 7.1.
- CDIV. Claim 47, drawn to a method for decreasing epithelial cell-proliferation comprising contacting a cell with a polypeptide of SEQ ID NO:8; classified in Class 435, subclass 7.1.
- CDV. Claim 47, drawn to a method for decreasing smooth muscle cell-proliferation comprising contacting a cell with a polypeptide of SEQ ID NO:8; classified in Class 435, subclass 7.1.
- CDVI. Claim 47, drawn to a method for decreasing endothelial cell-migration activity comprising contacting a cell with a polypeptide of SEQ ID NO:8; classified in Class 435, subclass 7.1.
- CDVII. Claim 47, drawn to a method for decreasing epithelial cell- migration activity comprising contacting a cell with a polypeptide of SEQ ID NO:8; classified in Class 435, subclass 7.1.
- CDVIII. Claim 47, drawn to a method for decreasing smooth muscle cell- migration activity comprising contacting a cell with a polypeptide of SEQ ID NO:8; classified in Class 435, subclass 7.1.
- CDIX. Claim 47, drawn to a method for decreasing viral polypeptide binding activity comprising contacting a cell with a polypeptide of SEQ ID NO:8; classified in Class 435, subclass 7.1.
- CDX. Claim 47, drawn to a method for decreasing cell adhesion activity comprising contacting a cell with a polypeptide of SEQ ID NO:10; classified in Class 435, subclass 7.1.

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- CDXI. Claim 47, drawn to a method for decreasing adherens junction formation activity comprising contacting a cell with a polypeptide of SEQ ID NO:10; classified in Class 435, subclass 7.1.
- CDXII. Claim 47, drawn to a method for decreasing endothelial cell-proliferation comprising contacting a cell with a polypeptide of SEQ ID NO:10; classified in Class 435, subclass 7.1.
- CDXIII. Claim 47, drawn to a method for decreasing epithelial cell-proliferation comprising contacting a cell with a polypeptide of SEQ ID NO:10; classified in Class 435, subclass 7.1.
- CDXIV. Claim 47, drawn to a method for decreasing smooth muscle cell-proliferation comprising contacting a cell with a polypeptide of SEQ ID NO:10; classified in Class 435, subclass 7.1.
- CDXV. Claim 47, drawn to a method for decreasing endothelial cell-migration activity comprising contacting a cell with a polypeptide of SEQ ID NO:10; classified in Class 435, subclass 7.1.
- CDXVI. Claim 47, drawn to a method for decreasing epithelial cell- migration activity comprising contacting a cell with a polypeptide of SEQ ID NO:10; classified in Class 435, subclass 7.1.
- CDXVII. Claim 47, drawn to a method for decreasing smooth muscle cell- migration activity comprising contacting a cell with a polypeptide of SEQ ID NO:10; classified in Class 435, subclass 7.1.
- CDXVIII. Claim 47, drawn to a method for decreasing viral polypeptide binding activity comprising contacting a cell with a polypeptide of SEQ ID NO:10; classified in Class 435, subclass 7.1.
- CDXIX. Claim 47, drawn to a method for decreasing cell adhesion activity comprising contacting a cell with a polypeptide of SEQ ID NO:12; classified in Class 435, subclass 7.1.
- CDXX. Claim 47, drawn to a method for decreasing adherens junction formation activity comprising contacting a cell with a polypeptide of SEQ ID NO:12; classified in Class 435, subclass 7.1.
- CDXXI. Claim 47, drawn to a method for decreasing endothelial cell-proliferation comprising contacting a cell with a polypeptide of SEQ ID NO:12; classified in Class 435, subclass 7.1.
- CDXXII. Claim 47, drawn to a method for decreasing epithelial cell-proliferation comprising contacting a cell with a polypeptide of SEQ ID NO:12; classified in Class 435, subclass 7.1.
- CDXXIII. Claim 47, drawn to a method for decreasing smooth muscle cell-proliferation comprising contacting a cell with a polypeptide of SEQ ID NO:12; classified in Class 435, subclass 7.1.
- CDXXIV. Claim 47, drawn to a method for decreasing endothelial cell-migration activity comprising contacting a cell with a polypeptide of SEQ ID NO:12; classified in Class 435, subclass 7.1.
- CDXXV. Claim 47, drawn to a method for decreasing epithelial cell- migration activity comprising contacting a cell with a polypeptide of SEQ ID NO:12; classified in Class 435, subclass 7.1.

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- CDXXVI. Claim 47, drawn to a method for decreasing smooth muscle cell- migration activity comprising contacting a cell with a polypeptide of SEQ ID NO:12; classified in Class 435, subclass 7.1.
- CDXXVII. Claim 47, drawn to a method for decreasing viral polypeptide binding activity comprising contacting a cell with a polypeptide of SEQ ID NO:12; classified in Class 435, subclass 7.1.
- CDXXVIII. Claim 47, drawn to a method for decreasing cell adhesion activity comprising contacting a cell with a polypeptide of SEQ ID NO:24; classified in Class 435, subclass 7.1.
- CDXXIX. Claim 47, drawn to a method for decreasing adherens junction formation activity comprising contacting a cell with a polypeptide of SEQ ID NO:24; classified in Class 435, subclass 7.1.
- CDXXX. Claim 47, drawn to a method for decreasing endothelial cell-proliferation comprising contacting a cell with a polypeptide of SEQ ID NO:24; classified in Class 435, subclass 7.1.
- CDXXXI. Claim 47, drawn to a method for decreasing epithelial cell-proliferation comprising contacting a cell with a polypeptide of SEQ ID NO:24; classified in Class 435, subclass 7.1.
- CDXXXII. Claim 47, drawn to a method for decreasing smooth muscle cell-proliferation comprising contacting a cell with a polypeptide of SEQ ID NO:24; classified in Class 435, subclass 7.1.
- CDXXXIII. Claim 47, drawn to a method for decreasing endothelial cell-migration activity comprising contacting a cell with a polypeptide of SEQ ID NO:24; classified in Class 435, subclass 7.1.
- CDXXXIV. Claim 47, drawn to a method for decreasing epithelial cell- migration activity comprising contacting a cell with a polypeptide of SEQ ID NO:24; classified in Class 435, subclass 7.1.
- CDXXXV. Claim 47, drawn to a method for decreasing smooth muscle cell- migration activity comprising contacting a cell with a polypeptide of SEQ ID NO:24; classified in Class 435, subclass 7.1.
- CDXXXVI. Claim 47, drawn to a method for decreasing viral polypeptide binding activity comprising contacting a cell with a polypeptide of SEQ ID NO:24; classified in Class 435, subclass 7.1.
- CDXXXVII. Claim 47, drawn to a method for decreasing cell adhesion activity comprising contacting a cell with a polypeptide of SEQ ID NO:31; classified in Class 435, subclass 7.1.
- CDXXXVIII. Claim 47, drawn to a method for decreasing adherens junction formation activity comprising contacting a cell with a polypeptide of SEQ ID NO:31; classified in Class 435, subclass 7.1.
- CDXXXIX. Claim 47, drawn to a method for decreasing endothelial cell-proliferation comprising contacting a cell with a polypeptide of SEQ ID NO:31; classified in Class 435, subclass 7.1.

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- CDXL. Claim 47, drawn to a method for decreasing epithelial cell-proliferation comprising contacting a cell with a polypeptide of SEQ ID NO:31; classified in Class 435, subclass 7.1.
- CDXLI. Claim 47, drawn to a method for decreasing smooth muscle cell-proliferation comprising contacting a cell with a polypeptide of SEQ ID NO:31; classified in Class 435, subclass 7.1.
- CDXLII. Claim 47, drawn to a method for decreasing endothelial cell-migration activity comprising contacting a cell with a polypeptide of SEQ ID NO:31; classified in Class 435, subclass 7.1.
- CDXLIII. Claim 47, drawn to a method for decreasing epithelial cell- migration activity comprising contacting a cell with a polypeptide of SEQ ID NO:31; classified in Class 435, subclass 7.1.
- CDXLIV. Claim 47, drawn to a method for decreasing smooth muscle cell- migration activity comprising contacting a cell with a polypeptide of SEQ ID NO:31; classified in Class 435, subclass 7.1.
- CDXLV. Claim 47, drawn to a method for decreasing viral polypeptide binding activity comprising contacting a cell with a polypeptide of SEQ ID NO:31; classified in Class 435, subclass 7.1.
- CDXLVI. Claim 47, drawn to a method for decreasing cell adhesion activity comprising contacting a cell with a polypeptide of SEQ ID NO:34; classified in Class 435, subclass 7.1.
- CDXLVII. Claim 47, drawn to a method for decreasing adherens junction formation activity comprising contacting a cell with a polypeptide of SEQ ID NO:34; classified in Class 435, subclass 7.1.
- CDXLVIII. Claim 47, drawn to a method for decreasing endothelial cell-proliferation comprising contacting a cell with a polypeptide of SEQ ID NO:34; classified in Class 435, subclass 7.1.
- CDXLIX. Claim 47, drawn to a method for decreasing epithelial cell-proliferation comprising contacting a cell with a polypeptide of SEQ ID NO:34; classified in Class 435, subclass 7.1.
- CDL. Claim 47, drawn to a method for decreasing smooth muscle cell-proliferation comprising contacting a cell with a polypeptide of SEQ ID NO:34; classified in Class 435, subclass 7.1.
- CDLI. Claim 47, drawn to a method for decreasing endothelial cell-migration activity comprising contacting a cell with a polypeptide of SEQ ID NO:34; classified in Class 435, subclass 7.1.
- CDLII. Claim 47, drawn to a method for decreasing epithelial cell- migration activity comprising contacting a cell with a polypeptide of SEQ ID NO:34; classified in Class 435, subclass 7.1.
- CDLIII. Claim 47, drawn to a method for decreasing smooth muscle cell- migration activity comprising contacting a cell with a polypeptide of SEQ ID NO:34; classified in Class 435, subclass 7.1.
- CDLIV. Claim 47, drawn to a method for decreasing viral polypeptide binding activity comprising contacting a cell with a polypeptide of SEQ ID NO:34; classified in Class 435, subclass 7.1.

- CDLV. Claim 47, drawn to a method for decreasing cell adhesion activity comprising contacting a cell with a polypeptide of SEQ ID NO:37; classified in Class 435, subclass 7.1.
- CDLVI. Claim 47, drawn to a method for decreasing adherens junction formation activity comprising contacting a cell with a polypeptide of SEQ ID NO:37; classified in Class 435, subclass 7.1.
- CDLVII. Claim 47, drawn to a method for decreasing endothelial cell-proliferation comprising contacting a cell with a polypeptide of SEQ ID NO:37; classified in Class 435, subclass 7.1.
- CDLVIII. Claim 47, drawn to a method for decreasing epithelial cell-proliferation comprising contacting a cell with a polypeptide of SEQ ID NO:37; classified in Class 435, subclass 7.1.
- CDLIX. Claim 47, drawn to a method for decreasing smooth muscle cell-proliferation comprising contacting a cell with a polypeptide of SEQ ID NO:37; classified in Class 435, subclass 7.1.
- CDLX. Claim 47, drawn to a method for decreasing endothelial cell-migration activity comprising contacting a cell with a polypeptide of SEQ ID NO:37; classified in Class 435, subclass 7.1.
- CDLXI. Claim 47, drawn to a method for decreasing epithelial cell- migration activity comprising contacting a cell with a polypeptide of SEQ ID NO:37; classified in Class 435, subclass 7.1.
- CDLXII. Claim 47, drawn to a method for decreasing smooth muscle cell- migration activity comprising contacting a cell with a polypeptide of SEQ ID NO:37; classified in Class 435, subclass 7.1.
- CDLXIII. Claim 47, drawn to a method for decreasing viral polypeptide binding activity comprising contacting a cell with a polypeptide of SEQ ID NO:37; classified in Class 435, subclass 7.1.
- CDLXIV. Claim 47, drawn to a method for decreasing cell adhesion activity comprising contacting a cell with a polypeptide of SEQ ID NO:38; classified in Class 435, subclass 7.1.
- CDLXV. Claim 47, drawn to a method for decreasing adherens junction formation activity comprising contacting a cell with a polypeptide of SEQ ID NO:38; classified in Class 435, subclass 7.1.
- CDLXVI. Claim 47, drawn to a method for decreasing endothelial cell-proliferation comprising contacting a cell with a polypeptide of SEQ ID NO:38; classified in Class 435, subclass 7.1.
- CDLXVII. Claim 47, drawn to a method for decreasing epithelial cell-proliferation comprising contacting a cell with a polypeptide of SEQ ID NO:38; classified in Class 435, subclass 7.1.
- CDLXVIII. Claim 47, drawn to a method for decreasing smooth muscle cell-proliferation comprising contacting a cell with a polypeptide of SEQ ID NO:38; classified in Class 435, subclass 7.1.

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- CDLXIX. Claim 47, drawn to a method for decreasing endothelial cell-migration activity comprising contacting a cell with a polypeptide of SEQ ID NO:38; classified in Class 435, subclass 7.1.
- CDLXX. Claim 47, drawn to a method for decreasing epithelial cell- migration activity comprising contacting a cell with a polypeptide of SEQ ID NO:38; classified in Class 435, subclass 7.1.
- CDLXXI. Claim 47, drawn to a method for decreasing smooth muscle cell- migration activity comprising contacting a cell with a polypeptide of SEQ ID NO:38; classified in Class 435, subclass 7.1.
- CDLXXII. Claim 47, drawn to a method for decreasing viral polypeptide binding activity comprising contacting a cell with a polypeptide of SEQ ID NO:38; classified in Class 435, subclass 7.1.
- CDLXXIII. Claim 47, drawn to a method for decreasing cell adhesion activity comprising contacting a cell with a polypeptide of SEQ ID NO:39; classified in Class 435, subclass 7.1.
- CDLXXIV. Claim 47, drawn to a method for decreasing adherens junction formation activity comprising contacting a cell with a polypeptide of SEQ ID NO:39; classified in Class 435, subclass 7.1.
- CDLXXV. Claim 47, drawn to a method for decreasing endothelial cell-proliferation comprising contacting a cell with a polypeptide of SEQ ID NO:39; classified in Class 435, subclass 7.1.
- CDLXXVI. Claim 47, drawn to a method for decreasing epithelial cell-proliferation comprising contacting a cell with a polypeptide of SEQ ID NO:39; classified in Class 435, subclass 7.1.
- CDLXXVII. Claim 47, drawn to a method for decreasing smooth muscle cell-proliferation comprising contacting a cell with a polypeptide of SEQ ID NO:39; classified in Class 435, subclass 7.1.
- CDLXXVIII. Claim 47, drawn to a method for decreasing endothelial cell-migration activity comprising contacting a cell with a polypeptide of SEQ ID NO:39; classified in Class 435, subclass 7.1.
- CDLXXIX. Claim 47, drawn to a method for decreasing epithelial cell- migration activity comprising contacting a cell with a polypeptide of SEQ ID NO:39; classified in Class 435, subclass 7.1.
- CDLXXX. Claim 47, drawn to a method for decreasing smooth muscle cell- migration activity comprising contacting a cell with a polypeptide of SEQ ID NO:39; classified in Class 435, subclass 7.1.
- CDLXXXI. Claim 47, drawn to a method for decreasing viral polypeptide binding activity comprising contacting a cell with a polypeptide of SEQ ID NO:39; classified in Class 435, subclass 7.1.
- CDLXXXII. Claims 48-49, drawn to a method for treating a disease or disorder associated with cell adhesion activity in a subject comprising administering a polypeptide of SEQ ID NO:2, classified in Class 514, subclass 2.

- CDLXXXIII. Claims 48-49, drawn to a method for treating a disease or disorder associated with adhesions junction formation activity in a subject comprising administering a polypeptide of SEQ ID NO:2, classified in Class 514, subclass 2.
- CDLXXXIV. Claims 48-49, drawn to a method for treating a disease or disorder associated with epithelial barrier function activity in a subject comprising administering a polypeptide of SEQ ID NO:2, classified in Class 514, subclass 2.
- CDLXXXV. Claims 48-49, drawn to a method for treating a disease or disorder associated with endothelia barrier function activity in a subject comprising administering a polypeptide of SEQ ID NO:2, classified in Class 514, subclass 2.
- CDLXXXVI. Claims 48-49, drawn to a method for treating a disease or disorder associated with endothelial proliferation activity in a subject comprising administering a polypeptide of SEQ ID NO:2, classified in Class 514, subclass 2.
- CDLXXXVII. Claims 48-49, drawn to a method for treating a disease or disorder associated with endothelial migration activity in a subject comprising administering a polypeptide of SEQ ID NO:2, classified in Class 514, subclass 2.
- CDLXXXVIII. Claims 48-49, drawn to a method for treating a disease or disorder associated with viral polypeptide binding activity in a subject comprising administering a polypeptide of SEQ ID NO:2, classified in Class 514, subclass 2.
- CDLXXXIX. Claims 48-49, drawn to a method for treating a disease or disorder associated with angiogenesis in a subject comprising administering a polypeptide of SEQ ID NO:2, classified in Class 514, subclass 2.
- CDXC. Claims 48-49, drawn to a method for treating a disease or disorder associated with adhesions junction formation activity in a subject comprising administering a polypeptide of SEQ ID NO:4, classified in Class 514, subclass 2.
- CDXCI. Claims 48-49, drawn to a method for treating a disease or disorder associated with epithelial barrier function activity in a subject comprising administering a polypeptide of SEQ ID NO:4, classified in Class 514, subclass 2.
- CDXCII. Claims 48-49, drawn to a method for treating a disease or disorder associated with endothelia barrier function activity in a subject comprising administering a polypeptide of SEQ ID NO:4, classified in Class 514, subclass 2.
- CDXCIII. Claims 48-49, drawn to a method for treating a disease or disorder associated with endothelial proliferation activity in a subject comprising administering a polypeptide of SEQ ID NO:4, classified in Class 514, subclass 2.
- CDXCIV. Claims 48-49, drawn to a method for treating a disease or disorder associated with endothelial migration activity in a subject comprising administering a polypeptide of SEQ ID NO:4, classified in Class 514, subclass 2.

- CDXCV. Claims 48-49, drawn to a method for treating a disease or disorder associated with viral polypeptide binding activity in a subject comprising administering a polypeptide of SEQ ID NO:4, classified in Class 514, subclass 2.
- CDXCVI. Claims 48-49, drawn to a method for treating a disease or disorder associated with angiogenesis in a subject comprising administering a polypeptide of SEQ ID NO:4, classified in Class 514, subclass 2.
- CDXCVII. Claims 48-49, drawn to a method for treating a disease or disorder associated with adhesions junction formation activity in a subject comprising administering a polypeptide of SEQ ID NO:6, classified in Class 514, subclass 2.
- CDXCVIII. Claims 48-49, drawn to a method for treating a disease or disorder associated with epithelial barrier function activity in a subject comprising administering a polypeptide of SEQ ID NO:6 classified in Class 514, subclass 2.
- CDXCIX. Claims 48-49, drawn to a method for treating a disease or disorder associated with endothelia barrier function activity in a subject comprising administering a polypeptide of SEQ ID NO:6, classified in Class 514, subclass 2.
- D. Claims 48-49, drawn to a method for treating a disease or disorder associated with endothelial proliferation activity in a subject comprising administering a polypeptide of SEQ ID NO:6, classified in Class 514, subclass 2.
- DI. Claims 48-49, drawn to a method for treating a disease or disorder associated with endothelial migration activity in a subject comprising administering a polypeptide of SEQ ID NO:6, classified in Class 514, subclass 2.
- DII. Claims 48-49, drawn to a method for treating a disease or disorder associated with viral polypeptide binding activity in a subject comprising administering a polypeptide of SEQ ID NO:6, classified in Class 514, subclass 2.
- DIII. Claims 48-49, drawn to a method for treating a disease or disorder associated with angiogenesis in a subject comprising administering a polypeptide of SEQ ID NO:6, classified in Class 514, subclass 2.
- DIV. Claims 48-49, drawn to a method for treating a disease or disorder associated with adhesions junction formation activity in a subject comprising administering a polypeptide of SEQ ID NO:8, classified in Class 514, subclass 2.
- DV. Claims 48-49, drawn to a method for treating a disease or disorder associated with epithelial barrier function activity in a subject comprising administering a polypeptide of SEQ ID NO:8, classified in Class 514, subclass 2.
- DVI. Claims 48-49, drawn to a method for treating a disease or disorder associated with endothelia barrier function activity in a subject comprising administering a polypeptide of SEQ ID NO:8, classified in Class 514, subclass 2.

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- DVII. Claims 48-49, drawn to a method for treating a disease or disorder associated with endothelial proliferation activity in a subject comprising administering a polypeptide of SEQ ID NO:8, classified in Class 514, subclass 2.
- DVIII. Claims 48-49, drawn to a method for treating a disease or disorder associated with endothelial migration activity in a subject comprising administering a polypeptide of SEQ ID NO:8, classified in Class 514, subclass 2.
- DIX. Claims 48-49, drawn to a method for treating a disease or disorder associated with viral polypeptide binding activity in a subject comprising administering a polypeptide of SEQ ID NO:8, classified in Class 514, subclass 2.
- DX. Claims 48-49, drawn to a method for treating a disease or disorder associated with angiogenesis in a subject comprising administering a polypeptide of SEQ ID NO:8, classified in Class 514, subclass 2.
- DXI. Claims 48-49, drawn to a method for treating a disease or disorder associated with adhesions junction formation activity in a subject comprising administering a polypeptide of SEQ ID NO:10, classified in Class 514, subclass 2.
- DXII. Claims 48-49, drawn to a method for treating a disease or disorder associated with epithelial barrier function activity in a subject comprising administering a polypeptide of SEQ ID NO:10, classified in Class 514, subclass 2.
- DXIII. Claims 48-49, drawn to a method for treating a disease or disorder associated with endothelial barrier function activity in a subject comprising administering a polypeptide of SEQ ID NO:10, classified in Class 514, subclass 2.
- DXIV. Claims 48-49, drawn to a method for treating a disease or disorder associated with endothelial proliferation activity in a subject comprising administering a polypeptide of SEQ ID NO:10, classified in Class 514, subclass 2.
- DXV. Claims 48-49, drawn to a method for treating a disease or disorder associated with endothelial migration activity in a subject comprising administering a polypeptide of SEQ ID NO:10, classified in Class 514, subclass 2.
- DXVI. Claims 48-49, drawn to a method for treating a disease or disorder associated with viral polypeptide binding activity in a subject comprising administering a polypeptide of SEQ ID NO:10, classified in Class 514, subclass 2.
- DXVII. Claims 48-49, drawn to a method for treating a disease or disorder associated with angiogenesis in a subject comprising administering a polypeptide of SEQ ID NO:10, classified in Class 514, subclass 2.
- DXVIII. Claims 48-49, drawn to a method for treating a disease or disorder associated with adhesions junction formation activity in a subject comprising administering a polypeptide of SEQ ID NO:12, classified in Class 514, subclass 2.

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- DXIX. Claims 48-49, drawn to a method for treating a disease or disorder associated with epithelial barrier function activity in a subject comprising administering a polypeptide of SEQ ID NO:12, classified in Class 514, subclass 2.
- DXX. Claims 48-49, drawn to a method for treating a disease or disorder associated with endothelia barrier function activity in a subject comprising administering a polypeptide of SEQ ID NO:12, classified in Class 514, subclass 2.
- DXXI. Claims 48-49, drawn to a method for treating a disease or disorder associated with endothelial proliferation activity in a subject comprising administering a polypeptide of SEQ ID NO:12, classified in Class 514, subclass 2.
- DXXII. Claims 48-49, drawn to a method for treating a disease or disorder associated with endothelial migration activity in a subject comprising administering a polypeptide of SEQ ID NO:12, classified in Class 514, subclass 2.
- DXXIII. Claims 48-49, drawn to a method for treating a disease or disorder associated with viral polypeptide binding activity in a subject comprising administering a polypeptide of SEQ ID NO:12, classified in Class 514, subclass 2.
- DXXIV. Claims 48-49, drawn to a method for treating a disease or disorder associated with angiogenesis in a subject comprising administering a polypeptide of SEQ ID NO:12, classified in Class 514, subclass 2.
- DXXV. Claims 48-49, drawn to a method for treating a disease or disorder associated with adhesions junction formation activity in a subject comprising administering a polypeptide of SEQ ID NO:24, classified in Class 514, subclass 2.
- DXXVI. Claims 48-49, drawn to a method for treating a disease or disorder associated with epithelial barrier function activity in a subject comprising administering a polypeptide of SEQ ID NO:24, classified in Class 514, subclass 2.
- DXXVII. Claims 48-49, drawn to a method for treating a disease or disorder associated with endothelia barrier function activity in a subject comprising administering a polypeptide of SEQ ID NO:24, classified in Class 514, subclass 2.
- DXXVIII. Claims 48-49, drawn to a method for treating a disease or disorder associated with endothelial proliferation activity in a subject comprising administering a polypeptide of SEQ ID NO:24, classified in Class 514, subclass 2.
- DXXIX. Claims 48-49, drawn to a method for treating a disease or disorder associated with endothelial migration activity in a subject comprising administering a polypeptide of SEQ ID NO:24, classified in Class 514, subclass 2.
- DXXX. Claims 48-49, drawn to a method for treating a disease or disorder associated with viral polypeptide binding activity in a subject comprising administering a polypeptide of SEQ ID NO:24, classified in Class 514, subclass 2.

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- DXXXI. Claims 48-49, drawn to a method for treating a disease or disorder associated with angiogenesis in a subject comprising administering a polypeptide of SEQ ID NO:24, classified in Class 514, subclass 2.
- DXXXII. Claims 48-49, drawn to a method for treating a disease or disorder associated with adhesions junction formation activity in a subject comprising administering a polypeptide of SEQ ID NO:31, classified in Class 514, subclass 2.
- DXXXIII. Claims 48-49, drawn to a method for treating a disease or disorder associated with epithelial barrier function activity in a subject comprising administering a polypeptide of SEQ ID NO:31, classified in Class 514, subclass 2.
- DXXXIV. Claims 48-49, drawn to a method for treating a disease or disorder associated with endothelia barrier function activity in a subject comprising administering a polypeptide of SEQ ID NO:31, classified in Class 514, subclass 2.
- DXXXV. Claims 48-49, drawn to a method for treating a disease or disorder associated with endothelial proliferation activity in a subject comprising administering a polypeptide of SEQ ID NO:31, classified in Class 514, subclass 2.
- DXXXVI. Claims 48-49, drawn to a method for treating a disease or disorder associated with endothelial migration activity in a subject comprising administering a polypeptide of SEQ ID NO:31, classified in Class 514, subclass 2.
- DXXXVII. Claims 48-49, drawn to a method for treating a disease or disorder associated with viral polypeptide binding activity in a subject comprising administering a polypeptide of SEQ ID NO:31, classified in Class 514, subclass 2.
- DXXXVIII. Claims 48-49, drawn to a method for treating a disease or disorder associated with angiogenesis in a subject comprising administering a polypeptide of SEQ ID NO:31, classified in Class 514, subclass 2.
- DXXXIX. Claims 48-49, drawn to a method for treating a disease or disorder associated with adhesions junction formation activity in a subject comprising administering a polypeptide of SEQ ID NO:34, classified in Class 514, subclass 2.
- DXL. Claims 48-49, drawn to a method for treating a disease or disorder associated with epithelial barrier function activity in a subject comprising administering a polypeptide of SEQ ID NO:34, classified in Class 514, subclass 2.
- DXLI. Claims 48-49, drawn to a method for treating a disease or disorder associated with endothelia barrier function activity in a subject comprising administering a polypeptide of SEQ ID NO:34, classified in Class 514, subclass 2.
- DXLII. Claims 48-49, drawn to a method for treating a disease or disorder associated with endothelial proliferation activity in a subject comprising administering a polypeptide of SEQ ID NO:34, classified in Class 514, subclass 2.

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- DXLIII. Claims 48-49, drawn to a method for treating a disease or disorder associated with endothelial migration activity in a subject comprising administering a polypeptide of SEQ ID NO:34, classified in Class 514, subclass 2.
- DXLIV. Claims 48-49, drawn to a method for treating a disease or disorder associated with viral polypeptide binding activity in a subject comprising administering a polypeptide of SEQ ID NO:34, classified in Class 514, subclass 2.
- DXLV. Claims 48-49, drawn to a method for treating a disease or disorder associated with angiogenesis in a subject comprising administering a polypeptide of SEQ ID NO:34, classified in Class 514, subclass 2.
- DXLVI. Claims 48-49, drawn to a method for treating a disease or disorder associated with adhesions junction formation activity in a subject comprising administering a polypeptide of SEQ ID NO:37, classified in Class 514, subclass 2.
- DXLVII. Claims 48-49, drawn to a method for treating a disease or disorder associated with epithelial barrier function activity in a subject comprising administering a polypeptide of SEQ ID NO:37, classified in Class 514, subclass 2.
- DXLVIII. Claims 48-49, drawn to a method for treating a disease or disorder associated with endothelial barrier function activity in a subject comprising administering a polypeptide of SEQ ID NO:37, classified in Class 514, subclass 2.
- DXLIX. Claims 48-49, drawn to a method for treating a disease or disorder associated with endothelial proliferation activity in a subject comprising administering a polypeptide of SEQ ID NO:37, classified in Class 514, subclass 2.
- DL. Claims 48-49, drawn to a method for treating a disease or disorder associated with endothelial migration activity in a subject comprising administering a polypeptide of SEQ ID NO:37, classified in Class 514, subclass 2.
- DLI. Claims 48-49, drawn to a method for treating a disease or disorder associated with viral polypeptide binding activity in a subject comprising administering a polypeptide of SEQ ID NO:37, classified in Class 514, subclass 2.
- DLII. Claims 48-49, drawn to a method for treating a disease or disorder associated with angiogenesis in a subject comprising administering a polypeptide of SEQ ID NO:37, classified in Class 514, subclass 2.
- DLIII. Claims 48-49, drawn to a method for treating a disease or disorder associated with adhesions junction formation activity in a subject comprising administering a polypeptide of SEQ ID NO:38, classified in Class 514, subclass 2.
- DLIV. Claims 48-49, drawn to a method for treating a disease or disorder associated with epithelial barrier function activity in a subject comprising administering a polypeptide of SEQ ID NO:38, classified in Class 514, subclass 2.

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- DLV. Claims 48-49, drawn to a method for treating a disease or disorder associated with endothelia barrier function activity in a subject comprising administering a polypeptide of SEQ ID NO:38, classified in Class 514, subclass 2.
- DLVI. Claims 48-49, drawn to a method for treating a disease or disorder associated with endothelial proliferation activity in a subject comprising administering a polypeptide of SEQ ID NO:38, classified in Class 514, subclass 2.
- DLVII. Claims 48-49, drawn to a method for treating a disease or disorder associated with endothelial migration activity in a subject comprising administering a polypeptide of SEQ ID NO:38, classified in Class 514, subclass 2.
- DLVIII. Claims 48-49, drawn to a method for treating a disease or disorder associated with viral polypeptide binding activity in a subject comprising administering a polypeptide of SEQ ID NO:38, classified in Class 514, subclass 2.
- DLIX. Claims 48-49, drawn to a method for treating a disease or disorder associated with angiogenesis in a subject comprising administering a polypeptide of SEQ ID NO:38, classified in Class 514, subclass 2.
- DLX. Claims 48-49, drawn to a method for treating a disease or disorder associated with adhesions junction formation activity in a subject comprising administering a polypeptide of SEQ ID NO:39, classified in Class 514, subclass 2.
- DLXI. Claims 48-49, drawn to a method for treating a disease or disorder associated with epithelial barrier function activity in a subject comprising administering a polypeptide of SEQ ID NO:39, classified in Class 514, subclass 2.
- DLXII. Claims 48-49, drawn to a method for treating a disease or disorder associated with endothelia barrier function activity in a subject comprising administering a polypeptide of SEQ ID NO:39, classified in Class 514, subclass 2.
- DLXIII. Claims 48-49, drawn to a method for treating a disease or disorder associated with endothelial proliferation activity in a subject comprising administering a polypeptide of SEQ ID NO:39, classified in Class 514, subclass 2.
- DLXIV. Claims 48-49, drawn to a method for treating a disease or disorder associated with endothelial migration activity in a subject comprising administering a polypeptide of SEQ ID NO:39, classified in Class 514, subclass 2.
- DLXV. Claims 48-49, drawn to a method for treating a disease or disorder associated with viral polypeptide binding activity in a subject comprising administering a polypeptide of SEQ ID NO:39, classified in Class 514, subclass 2.
- DLXVI. Claims 48-49, drawn to a method for treating a disease or disorder associated with angiogenesis in a subject comprising administering a polypeptide of SEQ ID NO:39, classified in Class 514, subclass 2.

4. Groups I-XXXVIII are different products. Polypeptides, nucleic acids and antibodies to the polypeptides differ with respect to their structures and physicochemical properties; therefore each product is patentably distinct.
5. Groups XXXIV-DLXVI are different methods. A method of designing, a method for identifying, a method of modulating, a method of inhibiting a method for treating, a method for increasing, and a method for decreasing differ with respect to ingredients, method steps, and endpoints; therefore, each method is patentably distinct.
6. Groups I- XII/ XXXIV-DLXVI are related as product and process of using. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the polypeptide of Groups I-XII can be used for to generate antibodies, in addition to the methods of designing, identifying, modulating, inhibiting treating, increasing, decreasing recited.
7. These inventions are distinct for the reasons given above. In addition, they have acquired a separate status in the art as shown by different classification and/or recognized divergent subject matter. Further, even though in some cases the classification is shared, a different field of search would be required based upon the structurally distinct products recited and the various methods of use comprising distinct method steps. Therefore restriction for examination purposes as indicated is proper.

Species Election

8. Irrespective of whichever group applicant may elect, applicant is further required under 35 US 121 (1) to elect a single disclosed species to which claims would be restricted if no generic claim is finally held to be allowable and (2) to list all claims readable thereon including those subsequently added.
 - A. If anyone of Groups II or III is elected, applicant is required to elect a substantially purified polypeptide, wherein the polypeptide is selected from a specific polypeptide such as the one recited in claim 6(a) or a specific polypeptide such as the one recited in claim 8(a) wherein the soluble polypeptide further comprising 1) a leucine zipper polypeptide, 2) an Fc polypeptide or 3) a peptide liner. These sequences and linkers are distinct species because their structures and modes of action are different which, in turn, address different therapeutic endpoints.
 - B. If anyone of Groups IV or V is elected, applicant is required to elect a substantially purified polypeptide, wherein the polypeptide is selected from a specific polypeptide such as the one recited in claim 6(b) or a specific polypeptide such as the one recited in claim 8(b) wherein the soluble polypeptide further comprising 1) a leucine zipper polypeptide, 2) an Fc polypeptide or

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- 3) a peptide linker. These sequences and linkers are distinct species because their structures and modes of action are different which, in turn, address different therapeutic endpoints.
- C. If anyone of Groups VII, IX, X, XI or XII is elected, applicant is required to elect a substantially purified polypeptide wherein the polypeptide is selected from a specific polypeptide such as the one recited in claim 6(c) or a specific polypeptide such as the one recited in claim 8(c) wherein the soluble polypeptide further comprising 1) a leucine zipper polypeptide, 2) an Fc polypeptide or 3) a peptide linker. These sequences and linkers are distinct species because their structures and modes of action are different which, in turn, address different therapeutic endpoints.
- D. If anyone of Groups XV or XVI is elected, applicant is required to elect an isolated polynucleotide of SEQ ID NOS:3 or 5, wherein a specific polynucleotide is selected from sequence as recited in claim 14 (b) wherein operable linker to polynucleotide encoding polypeptide of 1) an Fc polypeptide, 2) a leucine zipper polypeptide, or 3) a peptide linker these are species because their structures and modes of action are different which, in turn, address different therapeutic endpoints.
- E. If anyone of Groups XVIII or XIX is elected, applicant is required to elect an isolated polynucleotide of SEQ ID NO:9 or 11 wherein a specific polynucleotide is selected from a sequence as recited in claim 14 (c) wherein operable linker to polynucleotide encoding polypeptide of 1) an Fc polypeptide, 2) a leucine zipper polypeptide, or 3) a peptide linker these are species because their structures and modes of action are different which, in turn, address different therapeutic endpoints.
- F. If anyone of Groups XX or XXII is elected, applicant is required to elect an isolated polynucleotide of SEQ ID NOS:32 or 33 wherein a specific polynucleotide is selected from a sequence as recited in claim 14 (d) wherein operable linker to polynucleotide encoding polypeptide of 1) an Fc polypeptide, 2) a leucine zipper polypeptide, or 3) a peptide linker these are species because their structures and modes of action are different which, in turn, address different therapeutic endpoints.
- G. If anyone of Groups XIV, XVII, XXI or XXVI is elected, applicant is required to elect an isolated polynucleotide of SEQ ID NO: 1, 7, 30, or 35, wherein operable linker to polynucleotide encoding polypeptide of 1) an Fc polypeptide, 2) a leucine zipper polypeptide, or 3) a peptide linker these are species because their structures and modes of action are different which, in turn, address different therapeutic endpoints.
- H. If anyone of Groups LI-XCVIII is elected, applicant is required to elect a method for identifying an agent that modulates an activity of a polypeptide as it reads on a specific activity (such as the one recited in claim 27) these species are distinct because the different activity conditions differ in etiologies and therapeutic endpoints.
- I. If anyone of Groups CLIX-CCXXX is elected, applicant is required to elect a method of modulating an activity wherein the specific activity is 1) *cellular proliferation* or 2) *migration*, comprising contacting the a cell with an agent, wherein a specific cell as recited in claim 32 and wherein soluble polypeptide is 1) an Fc, 2) Leucine zipper or 3) peptide linker polypeptide. These species are distinct because the different activities and different cells are mutually

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exclusive in that they reach opposing endpoints and in that they employ structurally distinct “agents” to accomplish these mutually exclusive endpoints.

- J. If Group CCXXXII or CCXXXIII is elected, applicant is required to elect a method of inhibiting angiogenesis in mammal comprising administering to the mammal a polypeptide of SEQ ID NO: 4 or 6, wherein a specific polypeptide such as the one recited in claim 38(a)) wherein the soluble polypeptide further comprising 1) a leucine zipper polypeptide, 2) an Fc polypeptide or 3) a peptide liner. These sequences and linkers are distinct species because their structures and modes of action are different which, in turn, address different therapeutic endpoints.
- K. If Group CCXXXV or CCXXXVI is elected, applicant is required to elect a method of inhibiting angiogenesis in mammal comprising administering to the mammal a polypeptide of SEQ ID NO: 10 or 12, wherein a specific polypeptide such as the one recited in claim 38(b)) wherein the soluble polypeptide further comprising 1) a leucine zipper polypeptide, 2) an Fc polypeptide or 3) a peptide liner. These sequences and linkers are distinct species because their structures and modes of action are different which, in turn, address different therapeutic endpoints.
- L. If anyone of Groups CCXXXVII, CCXXXIX, CCXL, CCXLI, or CCXLII is elected, applicant is required to elect a method of inhibiting angiogenesis in mammal comprising administering to the mammal a polypeptide of SEQ ID NO: 24, 34, 37, 38 or 39, wherein a specific polypeptide such as the one recited in claim 38(c)) wherein the soluble polypeptide further comprising 1) a leucine zipper polypeptide, 2) an Fc polypeptide or 3) a peptide liner. These sequences and linkers are distinct species because their structures and modes of action are different which, in turn, address different therapeutic endpoints.
- M. If anyone of Groups CCXLIII-CCCXIV is elected, applicant is required to elect a method for treating an endothelial proliferation, migration or angiogenic condition wherein the said endothelial proliferation, migration or angiogenic condition is ischemia, atherosclerosis, ischemia-reperfusion injury, stroke, thrombosis, restenosis or tumor growth. These species are distinct because the pathological conditions differ in etiologies and therapeutic endpoints; thus each condition represents patentably distinct subject matter.
- N. If anyone of Groups CDLXXIV, CDLXXXV, CDXCI, CDXCII, CDXCVIII, CDXCIX, DV, DVI, DXII, DXIII, DXIX, DXX, DXXVI, DXXVII, DXXXIII, DXXXIV, DXL, DXLI, DXLVII, DXLVIII, DLIV, DLV, DLXI or DLXII is elected, applicant is required to elect a method for treating a disease or disorder wherein the disease or disorder is inflammation, sepsis, edema, diabetic retinopathy, asthma, allergy, allograft rejection, metastasis of cancer cells, paracellular transport disorders or inflammatory bowel disease. These species are distinct because the pathological conditions differ in etiologies and therapeutic endpoints; thus each condition represents patentably distinct subject matter.

9. Applicant is advised that a response to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any

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claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 C.F.R. § 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. M.P.E.P. § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. § 103 of the other invention.

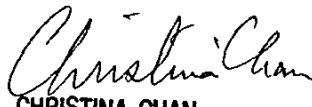
10. Applicant is advised that the response to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed.

11. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Maher Haddad whose telephone number is (703) 306-3472. The examiner can normally be reached Monday through Friday from 8:00 AM to 4:30 PM. A message may be left on the examiner's voice mail service. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Chan can be reached on (703) 308-3973. Any inquiry of a general nature or relating to the status of this application should be directed to the Technology Center 1600 receptionist whose telephone number is (703) 308-0196.

Papers related to this application may be submitted to Technology Center 1600 by facsimile transmission. Papers should be faxed to Technology Center 1600 via the PTO Fax Center located in Crystal Mall 1. The faxing of such papers must conform with the notice published in the Official Gazette, 1096 OG 30 (November 15, 1989). The CM1 Fax Center telephone number is (703) 305-3014.

Maher Haddad, Ph.D.
Patent Examiner
Technology Center 1600
June 2, 2002


CHRISTINA CHAN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1600